GOVERNMENT OF MYSORE

REPORT

ON THE

EXCAVATIONS AT T. NARASIPUR

By

PROF. M. SESHADRI

DIRECTOR OF ARCHÆOLOGY IN MYSORE

BANGALORE :

PRINTED BY THE DIRECTOR OF PRINTING, STATIONERY AND PUBLICATIONS AT THE GOVERNMENT PRESS

1971

GOVERNMENT OF MYSORE

REPORT

ON THE

EXCAVATIONS AT T. NARASIPUR

By

PROF. M. SESHADRI

DIRECTOR OF ARCHÆOLOGY IN MYSORE

PREFACE

The excavations at the site on the left bank of the Cauvery at T. Narasipur during the years 1959, 1960 and 1962 revealed the occurrence of a Neolithic phase prior to the Chalcolithic. The material covering the various phases has been set forth in the following pages.

The students of the Indology Department of the University of Mysore collaborated with the State Department of Archaeology in the excavations.

I thank my Departmental colleagues for their sincere co-operation and Sri S. Nagaraju and Dr. Gururaja Rao, Department of Ancient History and Archaeology, Mysore University.

I also thank the following scholars for their help : Dr. Malhotra, Deccan College, Poona for the examination of human remains, Dr. Bhola Nath and Dr. K .R. Alur respectively for the examination of the animal remains, Prof. B. G. L. Swamy for examining the remains of wood and the authorities of the Tata Institute of Fundamental Research for the C 14 dates. The Director of Government Printing, Stationery and Publications, Bangalore, Sri B. P. Mallaraj Urs took keen interest and expeditiously carried out the printing of the report. I express my grateful thanks to him.

Mysore,
January 1971

M. SESHADRI,
Director of Archaeology in Mysore.

CONTENTS

Excavations at T.-Narasipur.

List of Illustrations

Plate No.

39–A. Superimposition of sagittal contours—T.Narasipur specimen—Piklihal Male—Piklihal Female—

39–B. Superimposition of Sagittal Contours—T. Narasipur specimen—Tekkalkota specimen, No. 5, Male..

40. Superimposition of Sagittal contours—T. Narasipur specimen—Tekkalakota specimen, No. 2 Female..

41–A. Cranium—Norna Lateralis.—(T.Narasipur female skull).

41–B. Cranium—Norma Verticalis.

42–A. Cranium—Norma Occipitalis.

42–B. Mandibular outline in Orthogonal Lateral Projection showing the scheme of Angles in the Gnathogram and to show the different Corpus—Ramus slant as indicated by Pogonion (PG)—Condylion Superius (CDS) Diameter.

43. Mandible—Verticle aspect.

44–A. Mandibular Dentition.

44–B. Bones of the Extremities.

45–A. Cranium—Nomra Frontalis—(T. Narasipur burial—human female skull).

45–B. Cranium—Norma Basilaris.

46–A. Norma Lateralis.

46–B. Cranium—Norma Verticalis.

47. T. N. Painted pottery—Painted black-on-red, Chalcolithic. (page 41)

48. Chalcolithic pottery—T. Narasipur site Black-on-red.

49 Fluted cores, Chalcolithic, from T. Narasipur excavations. (page 57)

50–A. Black-on-red pottery, Chalcolithic, T. Narasipur site.

50–B. Channel—spouted Bowls from Hemmige, Chalcolithic. (Page 25)

51–A. Pinched Pottery—Chalcolithic. (page 25)

51–B. Channel-spouted pieces.

52. Channel—spouted potsherds—Chalcolithic No. 2 belongs to layer 2, may be Megalithic.

53. T. N. 3—Section and plan of the pit showing pottery pieces and Bones: Megalithic. (page 28).

54. T. N. 3—Section

55. T. N. Megalitnic black-and-red ware pottery pieces with graffiti: some of them bear ripple marks on their body as a background and the graffiti occur over them.

56. Megalithic Pottery. (pages 42–51)

57. Megalithic Bowls back-and-red.

58. Megalithic Pottery, T. Narsipur site.

59. Graffiti. (Megalithic) (Page 56)

60. Graffiti

61 Graffiti

62. Graffiti

63. Graffiti

64. T. N. Megalithic pottery pieces (black and red) with graffiti and ripple marks.

65–A. "Rouletted Ware", Early Historical period—T. Narasipur site.

65–B Early Historical Pottery—Russet-coated with dark bands under the lower surface.

66. T. N. Bangle pieces, Early Historical phase. (Pages 72–74)

———

I. INTRODUCTORY

(1) *T. Narasipur and its setting*: T. Narsipur is situated about 20 miles, South-East of Mysore at the confluence of the rivers Cauvery and Kabbini at 12°13′ N latitude and 76″58′ longitude. T. Narasipur is presently a town of moderate size. It is the headquarters of a taluk of the same name in the Mysore District. Tirumakudlu is a hamlet of Narasipur, situated at the tip of the land between the two rivers. There are a few temples dedicated to (a) Agastyesvara, (b) Gunja Narasimhasvami and (c) Anandesvara apart from a dilapidated temple in the vicinity of the site itself. The temple of Anandesvara is situated right on top of the site on the left bank of the river.

The site is situated in the Upper Cauvery Valley, now confined within the Mysore, Mandya and Hassan Districts of Mysore State covering nearly 12,000 square miles. The average breadth of the Cauvery in Mysore ranges between 300 to 400 yards, but from the point of its confluence with the Kabbini to the falls of Sivasamudram it swells into a broader stream. Perched on the southern part of the Deccan Plateau, this is an undulating table land, girt on three sides by hill ranges of the Eastern and Western Ghats, which meet each other southwards in the Nilagiri range. The general elevation of the area varies between 2,000 and 3,000 feet above sea level. The river Cauvery rising in the Western Ghats in the District of Coorg takes a South-easterly course right in the middle of the territory of a distance of about 100 miles, where it makes a sudden fall to a depth of about 300 feet, at Sivasamudram, and hence enters Tamilnadu, a little lower down its course. Hemavathi, Lokapavani and Shimsha on the north, Lakshmana Teertha, Kapila (Kabbini) and Honnuhole to the south are its important tributaries. A ridge running roughly on a line connecting Anekal, Bangalore, Koratagere, Tiptur and Arasikere acts as the watershed between the Cauvery system and the Krishna system towards the north and the Palar and the Pennar system towards the North-east.

This region watered by the perennial Cauvery and its tributaries is one of the most fertile areas in the present Mysore State and appears to have encouraged human habitation right from the earliest times, as evidenced by a number of ancient sites, strewn all over the Cauvery basin.

Archaeological Investigations so far

(2) *T. Narasipur*: Right in the latter half of the 19th Century Robert Bruce Foote had noticed a few pre-historic sites in the Cauvery valley, the most important among them being that from T. Narasipur itself. Foote mentions the site as T. Narasipur Sangam. He considered this as an Iron Age site as the majority of the antiquities he collected from this place were assignable to that period. He has, however, listed up a few pointed-butt stone axes as well as Burnished grey-ware. A neck rest has also been illustrated.

French-Rocks (*Pandavapura*).—On the slope of a hillock towards the west of the town, in a small cave, a few ringstones, polished-stone celts, hammerstones and corn crushers were noticed by him and these have been assigned by him to the Neolithic Age. However, black-and-red ware bowls, saucers, varieties of red-polished and black-polished vessels and ring stands, assignable to the bronze Age came from the same site. Black-and-redware, Red ware and black ware, however, were noticed at Lakshampura in the T. Narasipur Taluk.

Hemmige in the T. Narasipur Taluk is a Neolithic *cum*-chalcolithic site recently excavated by this Department. The cultural sequence at the site closely corresponds to that of T. Narasipur and hence it corroborates the evidence of this site.

Krishnapura again in T. Narasipur Taluk has yielded burnished grey-ware, russet-coated-kaolin painted ware, the black-and-red and other associated wares besides pieces of polished stone tools in the surface explorations. A beautiful fluted core of quartz was collected from the surface.

II. Aim of the present Investigations

The above discoveries reveal the archaeological potential of the area. The excavations were undertaken with a view to determine the culture sequence of the Upper Cauvery Valley, correlate it with the cultures revealed in the previous investigations, and obtain its chronological setting. Further, it was to verify the contention of some archaeologists that there is no true Neolithic phase in the prehistory of Southern India.

The catalogues of Bruce Foote declared that most of these Mysore sites were Iron Age sites though they mention a number of neolithic celts, corn crushers, etc.

Even the excavations at Brahmagiri, Nagarjunakonda, Maski and Sanganakallu had revealed the association of copper with the deposits yielding polished stone axes and hand-made burnished grey-ware. The parallel-sided blade industry and Black-on-red wares were other invariable components of this phase in all these sites. This picture is also the same as revealed by the chalcolithic cultures of Central India. But in the excavations at Bahal, a site on the Girna, Daimabad and Chandoli, a tributory of the Godavari, the existence of an earlier horizon with polished-stone axes and burnished grey-ware underlying the full fledged chalcolithic was recognizable. The distribution of the polished-stone axes, burnished grey-ware possibly shows that these are indigenous to the Central and Southern Deccan areas.

In the several visits by the Director and his staff of the Mysore Archaeological Department to T. Narasipur, innumerable polished pointed butt-end stone-axes and varieties of burnished grey-ware pottery, strewn over the whole area could be collected, but significantly no microliths had occurred in the same context. On the other hand, a few quartz or quartzite flakes were found. Here was a site which showed certain distinctive features within the so called "Neolithic". So, with the two-fold purpose of determining the culture-sequence of the Upper Cauvery Valley, and to examine the Neolithic component of the area, this site was selected for excavations and trial digging was done in March 1959.

Later, however, as the site proved fruitful, the exacavations were conducted for four more seasons during the summer months of 1960, 1962, 1963 and 1965.

Planning :

As mentioned earlier in this chapter, the site was chosen for excavations to estabish the cultural pattern of the Upper Cauvery Valley on the one hand and to examine the claim of earlier workers in the field that there did not exist a true neolithic phase in South India and what were collected as neoliths represented only a polished stone axe phase of a late date.[1] But Wheeler's excavations at Brahmagiri itself and those of Subba Rao at Sanganakallu and Thapar's

1. Wheeler: Early India and Pakistan, P. 80.

excavations at Maski brought to light evidence which would have shown the hollowness of this charge. But unfortunately in the then available stage of our archæological knowledge, the significance of this evidence could not be appreciated. The work of Allchin at Utnur and Piklihal in the 1960s established to a considerable extent the claim of this phase of South Indian Archaeology to not only a considerable antiquity, namely, the closing centuries of the third millennium B.C. but also to a gradual evolution of the settled agricultural communities in the region. In the light of the above evidence as also the knowledge at our disposal that the neolithic communities have left behind in the region, it was thought proper to assess the nature of the neolithic culture in the Upper Cauvery basin. Among the number of neolithic sites in the region, T. Narsipur was selected because of its location at the confluence of the two rivers—Kabbini and Cauvery, the extensive nature of the site as also the comparatively undisturbed nature of the site. The neighbouring site of Hemmige has also been excavated in the year 1964 and these excavations have clearly established that the neolithic in the region claiming a date from the first half of second millennium B.C. saw the gradual evolution of the peasants into food-producing and settled communities responsible for the growth of civilisation.

III. THE ANCIENT SITE

The Ancient Site is located just opposite Narasipur Town, on the deft bank of the river Cauvery. Every year during the high floods in the river, considerable portion of its left bank is eroded. This destroys the overlying habitation deposits and also due to the under cutting and consequent collapse of the upper portion much of the site is gone. All along the length of the site, the bank rises straight up as a cliff from the edge of water. Looking either from the Gunja-Narasimha Temple on the right bank or from Tirumakudal at the confluence, this presents a beautiful view, during summer, with its contrast of horizontally coloured bands of soil, with a mass of lime-stone deposits at the bottom rising just above the blue waters of the river or the yellow stretch of sand, and the succeding loam, and further up the greyish alluvial of the habitation deposit. The sky line is relieved by numerous trees behind the site and the solitary temple of Bhiksheshwara located at the highest point of the mound. Just on the river bank itself a flight of steps adds to the beauty of this picturesque view.

During summer the river is easily fordable from many points.

This is the easiest approach from T. Narasipur. The people of Kendanakoppal, a village situated a little north of the ancient site, usually take this route only for their journey to and from T. Narasi-pur. Otherwise, the site could be approached from T. Narasipur on the Bangalore road. Just at the northern end of the Cauvery bridge, a mud path leads eastwards from the main road, running along the bank of the river. This leads directly to the site itself after a distance of a furlong and-a half.

What remains of the site, after the devastating action of the river year after year could be considered as impressive, from all standards, compared to the other known ancient sites in the area. The extent of the site is somewhat easy to mark on due to the recognizable difference between the natural soil and the habitation deposit on the river bank. Further the ancient site proper rises a bit higher than the surrounding ground. Due to the somewhat higher elevation of the area, this has remained a stretch of dry land in contrast to the surrounding fields under wet cultivation. Sometimes during the high floods in the river in certain years, while the sundry wet fields and the village to the north are sub-merged under wates, the site remains an island rising above the large stretch of water. The highest point of the mound is near the Bhiksheshwara Temple.

At the western most point of the site there is the temple of Anandesvara, which may have been built somewhere in the 17th Century A.D. Probably the temple itself stands on the toe of the site. Here, however, a few pieces of ancient pottery could be collected and the site is much disturbed due to small ravines running from the neighbourhood o f the wet fields towards the river cutting through the site. Similarly there is another cutting through the site just to the west of the Bhiksheshwara Temple. This now serves as the road to approach the river for the villagers of Kendanakoppal. The

Bhiksheshwara temple, as it stands to-day, is a poor structure of no architectural importance. It is built of granite and consists of a sanctum with a square hall in front divided into a nave and an aisle on eitherside, by two small pillars raised in the centre of the hall along the alignment of the side-walls of the sanctum. It has a small doorway in front looking towards the river and the Agastyesvara temple at Tirumukudlu further on. There is a plain low pyramidal tower of brick and mortar above the sanctum and from the stylistic point of view the temple cannot be pushed to a date earlier than the 18th or the 19th Century A.D. However, a few large stones used for the basement of the temple consist of illegible inscriptions in Kannada characters of the 14th Century A.D. Even though the temple has been built on the ancient site itself disturbing the deposit in that area, this mediaeval construction, along with the flights of steps has saved the site from considerable damage restraining the pushing water of the river from hitting the banks directly upto a considerable distance further down. But the strength of the running water is so high that portions of the bank collapse during every flood season.

Just behind the Bhikshesvara Temple there is a small depression cutting off the temple mound from the main area of the site. This is used as road to go down to the river bank by vehicles that often frequent the place in summer to carry the fine sand deposited on the bank.

IV. SUMMARY OF THE RESULTS

Period I. Neolithic

The Site of T. Narasipur appears to have been first occupied during the early centuries of the second millennium before Christ, as revealed by the carbon-14 days obtained for the charcoal from the lowest layed (6) of the site=1800 to 1700 B.C ± 110 years by the incipient peasant-*cum*-pastoralist communities. The daily life of these people was characterised by the use of burnished grey-ware, hand-modelled and roughly fired, polished-pointed-butt stone axes, etc. The evidence from the neighbouring sites indicates that their main occupation was pastoralism and a crude method of cultivation probably using the digging stick and hoe. The occurrence of stone objects which might have been used as weights for digging sticks, saddle and rotary querns for crushing the grain, etc., go some way to suggest the method of their cultivation and use of the harvested grain. The occurrence of polished-stone axes gives us an idea of their tools and implements of their day-to-day work. The occurrence of the gold bead, though a lone specimen would strengthen the theory that gold mining was practised and gold was used for ornaments and trade by these neolithic folk in South India. The exposure of the burial dating from the closing phase of this period would provide evidence about the mode of the disposal of their dead. Thus the evidence from the deposits belonging to the neolithic phase at the site would not only confirm and corroborate the picture of the neolithic folk in the Deccan and South Mysore, but also focus the attention on some new aspects of this culture. Thus the evidence of T. Narasipur provides for the first time a picture of the neolithic folk and their activities in the upper Cauvery Valley, the Southern most site in South India subjected yet to excavations. The mysterious head rests reported long back by R.B. Foote have now been placed in their proper archaeological context since one of them has been found in proximity to the head of the dead body and hence clinches the problem of its use.

Period II. Transitional

During this period which might have come into existence towards the closing centuries of the 2nd and opening centuries of the 1st Millennia before Christ, we find the simple rustic way of the life of the neolithic folk undergoing vast changes. These changes were partially motivated by local progressive developments and partly by influences and inspirations which seeped in from the adjoining regions to the north which possessed comparatively more advanced cultures namely the chalcolithic and later the Iron age cultures.

The local developments are the evidence for the gradual use of turn-cable or slow-wheel for making the pots, production of pottery with finer fabric and firing, improved methods of cultivation as suggested by fully ground and highly polished axes and chisels. From the north came, towards the beginning of this period, traits native to the chalcolithic culture of Central and Western India such as the use of copper, though in scanty quantities, wheel-made-sturdy

red-ware of fine fabric painted in linear designs in black, akin to the Jorwe ware, and fluted cores, though no blades proper, removed from these cores have been encountered from the site. But these intrusive chalcolithic features could not gain any prominence at the site as a more vigorous iron and black-and-red ware-using megalithic culture followed in its wake and secured, mastery over both the earlier autochthonous neolithic and the intrusive chalcolithic cultures within a short time. This important event must have occurred sometime early in the first millennium B.C. as carbon 14 dates for the end of the neolithic and chalcolithic indicate in the more northerly regions. Hence this phase has been called the overlap or transitional phase.

Period III. Megalithic

The third period in the site is represented by the well-known proto-historic culture in South India, *viz.*, the Magalithic. This culture must have commenced sometime in the 2nd quarter of the first millennium B.C., if not earlier, for the reasons mentioned above, namely, the C14 dates for the end of the neolithic-chalcolithic of the Deccan and overlapping of these cultures with the megalithic in the region. Or at the most, if the earlier cultures survived for a slightly longer period in this region, the megalithic could have started slightly later, at any rate, not after the middle of the first millennium B.C. Unfortunately no burials of the megalithic type proper have been encountered at the site. But there is no mistaking of the fact that the habitational deposits of this period particularly layer (3) of the site represents this culture. It is characterised by the use of the black-and-red ware, often with graffiti, iron and other traits that go with the megalithic. The pottery consisting of, besides, the black-and-red, the black-polished and the red-polished wares made of finely levigated clay on a fast turning wheel, well polished and comparatively well-fired. The black-and-red ware in particular is finely produced and among the South Indian wares of the proto-historic period may well be called the 'table ware' or 'deluxe ware'. Iron came into general use for agricultural, defensive and offensive purposes during the period, though in the limited excavations of the site, only a few iron objects were encountered and even they were in a highly rusted state probably due to the nature of the soil. Beads of terracotta, semi-precious stones, and bangle pieces of glass are among the objects of ornamentation in normal use.

Period IV. Early historic

The deposits of this period were highly disturbed due to their nearness to the surface. The cultural pattern of this period continued to be similar to that of the period which it succeeded, *viz.*, the megalithic. The differences are seen in the emergence of a few new ceramic fabrics, natably the imitated-rouletted ware, originally of the Roman origin and the russet-coated ware painted with Kaolin. But the earlier black-and-red and associated wares continued to be the dominant types of the ceramic industries and the emergence of a new ware, the illfired crude red ware is also witnessed during the period. This may, on the other hand, be even due to the gradual devolution

of the earlier red-polished ware. The beginnings of this period may be assigned to the first century A.D., or slightly later as the imitated rouletted ware occurs in this level. The true rouletted ware was produced in 28 A.D. in Rome and was brought to South India by Roman traders from the Second quarter of the century and in course of time, the rouletted ornamentation was imitated on local fabrics by the local potters. It is such crude imitations of the rouletted designs on russet-coated ware which have been found in T. Narasipur.

Chronology.—The probable chronology of the different cultures of the site have been suggested above. These determinations regarding the dating have been arrived at both by the internal evidence, as also corroborative evidence from the neolithic and chalcolithic sites in north Karnatak, Central and Western India.

Regarding the internal evidence, the lowest level, *viz.*, (6) yielded charcoal which on radio-active analysis by T.I.F.R. yielded two dates, namely 3345 ± 105 or 1395 ± 105 B.C. and 3645 ± 105 B.P. or 1695 ± 105 B.C., and thus would take back the culture to about 1800 B.C. if not earlier (This calculation is based on half life value of C14 being 5568 years. If the half life value is assumed to be 5730 ± 40 years, the dates would be 3445 ± 110 B. C. or 1495 ± 110 B. C. and 3755 ± 110 B. P. or 1805 ± 110 B. C.). This would closely agree with dates obtained for neighbouring sites of this culture, *i.e.*, for Tekkalakota the three dates being 1445 ± 105 B.C. 1515 ± 105 B.C. and 1675 ± 105 B.C., for Piklihal the beginnings of the neolithic is put to circa 2000 B.C. and the end to 650 B.C. (based on cultural considerations) and for Utnur the two dates available are 2170 ± 150 B.C. and 2295 ± 155 B.C. While the dates for Utnoor are the earliest and probable dates for Piklihal being in the same range, the comparatively younger dates for Tekkalakota can be due to the fact that the samples come from slightly later levels and also the site is more southerly. It is well known that the cradle of neolithic culture in South India is in Raichur Doab and the dates may be slightly later as far as the more southerly sites are concerned. The C14 dates from T. Narasipur very well agree with this picture.

For the end of the neolithic and the intrusion of the chalcolithic elements, we do not have any direct and conclusive evidence available from the excavations themselves. That this intrusion must have taken place towards the very end of the neolithic-chalcolithic times in the region is suggested by the fact that the succeeding megalithic culture either simultaneously appears or closely follows it. That the end of the chalcolithic-neolithic came about sometime in the first few centuries of the first millennium B.C. is known from the Carbon 14 dates for Western Indian Chalcolithic and Deccan neolithic sites. Further support to this view is available from the C 14 dates obtained for the Iron Age site of Hallur in the same general region which takes it a little earlier.

Thus while the early centuries of the first millennium, B.C., may be taken as the date for the beginning of the megalithic culture, the end of the culture can be dated on solid grounds to about the first

century A.D. due to the occurrence of the imitated-rouletted ware as also the ruseet-coated ware which is dated by Wheeler at Brahmagiri and Chandravalli to this period but which may require modification in the light of its association with the megalithic and stratigraphic precedence to the rouletted as at Uraiyur and Thirukkampuliyur in the lower Cauvery Valley. The Early Historical Culture overlaps with the megalithic and may well be assigned to the same date since the deposits of the period are very much disturbed ; it is not possible to say how long it lasted.

V. THE CUTTINGS

During the excavations conducted in five seasons between 1959 and 1965, altogether twenty five trenches were laid. They were numbered T.N. 1 to T.N. 25. The stratigraphy and other details were the same almost throughout the area and only important ones are described hereunder :

T.N. 1

The trench measuring 6.15m×2.44m was laid at the highest point of the site to the left of the Bhikshesvara temple. The natural soil was reached at the depth of 2.59 m from the surface. There were altogether six layers representing continuous habitation from the Neolithic on wards to the Early Historical phase and an overlap of the two cultures the Neolithic and the Megalithic in the layers (4) and (3A). Unfortunately a large pit roughly circular measuring 3.97 m by 2.14 m at the surface, dug from the 2nd layer and extending down to a depth of 2.14 m occurred disturbing the earlier layers upto the sixth. The pit contained mostly pottery of 'Megalithic' fabric and a large number of pieces of animal bones and by the nature of the pit, it could be surmised that it was probably used for dumping the refuse. Due to the digging of the pit there was some admixture of the materal from earlier levels in the upper deposits. Late pottery including some modern tile pieces was found mixed up in the first layer. Another pit had been dug from the fifth layer extending down to the middle of the 6th layer in one of the corners.

A large damaru shaped vessel of crude red ware with three holes on the waist (ring stand ?) from pit II, a small pot stone disc with a hole in the centre from layer five, a neolithic axe from layer four and a piece of neck-rest from layer five are among the important finds in this trench.

T.N. 2

The trench laid on the low-lying field behind the Bhikshesvara temple measured 3.66 m × 5.49 m. The area which is under cultivation, naturally had a fairly thick disturbed soil at the top mixed with modern antiquities also. The lower levels however, were completely intact, representing the habitation debris right from the earliest stages of the habitation of the T. Narasipur site.

Piece of a footed-vessel from the 4th layer is one of the important finds in the trench.

T.N. 3

Number 3 is a large trench measuring (6.15 m.sq.) laid on the main area of the site. Six layers were recognised.

As the habitational deposits had been disturbed by a number of later pits, the trench was dug to the natural soil only partially. Out of the six layers the first two represented the early historic, the third the Megalithic culture, the last two the neolithic and the 4th the period of overlap between the two.

Four huge pits were recognised all dug from the Megalithic levels. Pit I which ran towards the N.E. corner of the trench and had been dug from the second layer down to the 5th layer. A large number of megalithic pottery and bone pieces were found in the pit. The second pit had been dug from the 4th layer down to the 5th to a depth of about 92 cms. Pottery mostly of the megalithic type and bone pieces occurred profusely. A piece of polished axe also occurred.

The third pit was also characterised by the same features with profuse occurrence of megalithic pottery and bone pieces. This was towards the southern side of the trench and on plan it was roughly semi-circular. It was dug from the second layer down to the 4th. A piece of neolithic axe was found in it.

T.N. 4

This trench, measuring (6.15m×3m) laid in the main area of the site, was dug upto the natural soil. The occupational deposits represented all the importan stages in the habitation of the site, with a good yield of antiquities representative of the different phases. Out of the six layers recognised above the natural soil, the first was much disturbed due to cultivation. The second belonged to the Early Historical and the third belonged to the Megalithic phase and the Sixth and the Fifth to the Neolithic. Layer Four marked the period of overlap between the two.

In a small area in one of the corners a dump consisting of pieces of animal bones and pottery, of the black-and-red ware occurred in the 3rd layer. The earlier layers were quite undisturbed. The area contained charcoal and bone pieces and a few pieces of pottery.

A piece of polished stone axe from layer three, a piece of rubber from layer four, a pot-stone pounder from layer three, a neck-rest piece from the Fourth layer are some of the important antiquities from this trench. Pottery occurred profusely throughout and there was specially a remarkable series of hand-made ware with incised ornamentation in the Fifth layer.

T.N. 5

T.N. 5 represents the eastern most trench laid on the site. It measured 1.83m×1.23m). Three layers were met with above the loose sandy natural soil which was reached at a depth of (94 cm) from the surface. The first layer

is humus. The second which was of a considerable thickness, (53 cms.) composed of hard rough earth, yielded no antiquity whereas the next layer about a foot-thick contained a few pieces of pottery and lumps of burnt earth.

T.N. 7 and 7A.

On the central part of the site adjoining the river edge a large area measuring (12.20 m x 6.15 m) was marked off for digging. One each in the south and the other in the north measuring (6.15 m x 3 m) was dug up to natural soil and these diggings were named 7 and 7A.

The usual series of strata was met with in 7, above the natural soil. A large part of the area had been disturbed by the roots of a nearby tree. There was a small patch measuring about 61 cms x 61 cms x 30 cms in layer two consisting of lumps of charred earth mixed with burnt lime stone and a few pieces of rough red ware. A few Black-and-Red ware pieces occurred. This is possibbly a refuse dump.

Within the 2nd layer itself another dump consisting only pot-sherds mostly of the Black and Red variety occurred.

A piece of pestle from layer two, two pieces of neck-rest from layer four are important finds in this cutting.

7A. was interesting as it was here that a piece of black-on-red ware turned up on the site, for the first time. It was at the bottom of the fourth layer, which represents the deposits of the period of overlap between the Neolithic and the Megalithic culture.

A piece of neolith from layer four, two pieces of neck-rest and a piece of neolithic axe from five are some of the important finds. In the sixth layer a few pieces of large sized bowls with painting in red ochre at the lip were found. These must have been used for purposes of cooking, as their outer surfaces were covered with soot.

T.N. 10.

Of habitational deposits divisible into six layers over the natural soil were encountered in this trench measuring 5.55 m x 2.44 m. The fifth and the sixth layers were of the Neolithic, the fourth indicated a period of overlap between neolithic and megalithic and the second of Early Historical where-as (1) had been disturbed by cultivation.

Three small pits were noticed: Pit I starting from layer (2) running down to the 3rd layer and pit II in the middle of the trench dug from the 4th layer to the (5). A

small area consisting of pieces of charcoal, ash and bone pieces which was marked as pit III within layer (6) itself appears to be a hearth. A piece of neck-rest from (6) a knobbed piece of pottery with a hole across probably for a string to pass through from 4th layer, three pieces of neck-rest, a piece of strainer are some of the notable finds.

T.N. 16 and 16A.

These trenches measure (6.15 m x 3 m.). The digging disclosed six layers.

The most interesting feature of the digging here is the discovery of a human burial in trench 16. It is assignable to the Neolithic period. The burial pit was sealed by (4) and cut into (5) and (6). The burial is described in detail.

T. N. 17.

All the six layers as in other trenches were noticed with the usual contents.

A piece of neck-rest from the 5th layer is among the important finds here.

T. N. 19.

The trench measuring (3.35 m x 2.44 m) was taken up at the easternmost part of the site. There was only a very small habitational deposit consisting of four layers. The first and second were of Megalithic culture whereas Third represented the period of overlap. The fourth was the Neolithic. Below that was the natural soil which was composed of hard black clay.

A pit dug from the Megalithic level consisted of skull of an ox or cow surrounded by long bones: ulna and the hoofs. A Neolithic axe was found.

A piece of quern from layer (3) is among the notable finds from the trench.

T. N. 20A.

Laid in the main area of the site, this trench measured 6.15 m x 3 m. Six layers were noticed in the habitation deposit in all above the natural soil. Layer (3) and (3A) occur here.

At the N.E. corner a pit was noticed to have been dug from layer (3) down to (4). It consisted mostly of pot-sherds and pieces of bones. Another large pit was found towards the south of the trench, dug from layer (2).

Some good number of pieces of black-on-red ware from the 4th layer are an important feature of the finds of the trench. It was generally found that the lower-most levels of (4) yielded black-on-red ware.

T. N. 21.

This trench measuring 6, 15 m x 3 m was laid towards the edge of the river bank. There were altogether six layers. Layer (1) to (2) were of Early Historical period, (3) of the megalithic culture and (5) and (6) of the Neolithic and there was an overlap in the 4th layer.

Within the neolithic layer two post holes were observed five feet apart, each of 8 cms. diameter, going down to about 26 cms to 28 cms. Good number of hand-made burnished grey-ware with lip paint occurred in these layers along with usual burnished grey and coarse red wares.

T. N. 22.

A large trench measuring 12.20 m x 6.15 m was laid at the E.N.E. side of the site away from the river bank. It revealed the already familiar six layers corresponding to the culture-sequence observed in other trenches. The Early historical and the Megalithic levels were much disturbed by pits cut into them in later times.

A fine terracotta elephant made from a mould, which apparently is of historical times and which might have infiltrated into the place where it was found, banle pieces terracotta beads and a stone axe are among the important finds in this trench.

T.N. 23

This trench measuring 3 x 8 metres was on the main area of the site.

The area was much disturbed by pit-digging activities. Eight pits were recognised from various levels. Pit I was small about 1 x $\frac{3}{4}$ metre towards the North West edge of the trench, and was dug from the 3rd layer down to the 5th. A large piece of stone, few bone pieces and pottery were found in this pit. Pit II was large again, found in the same area but dug from layer (4) down to the natural soil.

A few pieces of lip painted burnished grey and coarse unburnished grey-wares were also noticed. Rough unburnished grey-wares covered with soot were however found in the sixth layer also.

A pounder and an axe from layer (2), a pounder, a piece of an axe, a terracotta pottery dabber and a lamp from (3), stone rubbers, a piece of wood, Neolithic axe pieces and pounders from the 5th and the 6th layers are the other notable finds.

T. N. 24 A.

The trench measuring (3 m x 3 m) was laid in the main area of the site.

At the bottom of layer (6) a pit ,pit VI), about a metre in diameter was recognised, containing much ash, charcoal pieces. But in the same level itself towards the South-Western portion of the trench remains of large logs of burnt wood were found and the area around them was also charred.

A spherical gold bead from the 5th layer, small biconical copper bead from the 4th layer and a quartz flake from the pit within layer (6) are some of the important finds. Carbon samples were collected from the burnt log as well as from the pit and were examined at the Carbon-14 laboratory of the Tata Institute of Fundamental Research, Bombay.

T.N. 16

Pit I occurs in the S.W. corner of the trench covering almost half of the southern section and $\frac{3}{4}$ of western section. It is sealed by (2) and cuts into (3) and (4) and partly into (5). It consisted of loose brownish soil and large quantities of pottery. Among the potsherds the dominant variety is the redware of early historical period. The types include (1) globular pots with short and straight necks, externally beaded rim decorated with rope design consisting of finger-tipped incisions on a raised band on the exterior of the rim. A number of grooves and a single rigde are found on the shoulder. Also a deep groove is seen on the interior of the rim.

(2) Deep vase with flatly and externally bent rim with thin groove on the rim. (3) Small thick vase with deep groove on the shoulder, nail headed and flattened rim.

(4) Lid-*cum*-bowl prominently carinated at the waist with a deep channel on the neck and thickened rim.

(5) Conical bowls with truncated and flattened bottom.

(6) Spouted vessels with short, squattish spouts.

T. N. 20

A large pit sealed by (2) and cutting into layers (3), (4) and (5) and (6) occurs in the middle of the trench near the southern section. The pit covers the whole of the southern section between pegs 0 to III. It contained loose ashy soil and quantities of potsherds. At the bottom of the pit were found the skeletal remains of a horse of these remains the skull part was complete with both upper and lower jaw with a complete set of teeth.

The pottery consisted of both the burnished grey ware of the Neolithic period and the black polished and B. & R. wares of the Megalithic period. Among the burnished grey ware are found :

(1) Piece of a bowl slightly pinched at the rim, *i.e.*, lipped. It is brown slipped, ill-fired coarse ware with large number of sand particles and exhibit a number of burnished grooves. The pinching in this instance is made with the thumb which has left its impression at the lip.

(2) Piece of a channel-spout in pale burnished grey ware. Only the channel-spout part is remaining. It has a light brownish slip on both sides and is well fired and has a comparatively smooth fabric.

(3) Piece of a channel-spouted vessel with a thin brownish wash on the exterior, while the core which is gritty due to the presence of sand grains is well fired. The surface is somewhat rough and burnishing grooves are visible. The channel-spout as well as the vessel seem to be very flat.

(4) Piece of a channel-spout with a brownish grey colour.

(5) Piece of a perforated vessel. With the holes being pierced with a sharp instrument from both sides. It is burnished on the interior, while the exterior is only smoothened.

(6) Piece of blackish grey ware, slightly burnished. The outer surface exhibits what appears to be traces of roughly painted parallel lines. Seven or eight such lines are visible.

(7) Another sherd similar to the above.

A few more sherds of the grey ware were found. One of them indicating parallel, grooves on the exterior.

(8) Piece of a bowl with bulging sides, slightly internally beaded rim in B and R ware. Well polished.

(8a) The neck portion of a vessel with long flaring neck externally beaded rim and a deep groove above rim in B and R ware.

(9) and (10) are pieces of a large basin in black polished ware with internally beaded rim having a thick groove below the rim on the exterior.

(11) Piece of a shallow dish with slightly upturned thickened rim, deep groove below the rim on the exterior. (Black polished ware).

(12) Similar to the above, but the rim is flattened, externally beaded with a pronounced channel-like groove below the rim on the exterior (black polished ware).

(13) The neck portion of a long-necked vessel with flaring mouth and externally beaded rim in black-polished ware.

(14) Similar to the above but of a smaller size. And a few more sherds all in black-polished ware.

T.N. 23

Pit I occurs in the north-western part of the trench. It is sealed by (3) and cuts into (4). It consisted of loose ashy material in which were found a few pieces of stones, bones and pottery.

Pit II: This pit also occurs on the north-western corner of the trench and is comparatively of large size. This pit is sealed by (4) and goes down to the natural soil cutting (5) and (6). It contained loose ashy soil, with charcoal pieces, postsherds and a piece of neolithic.

Pit IV

Occurs near the northern section between pegs III and VI. It is sealed by (3) and cuts into (4), (5) and slightly into (6). It consisted of loose ashy soil. Considerable number of potsherds both of the Neolithic burnished grey variety and of the Megalithic B and R, Black-polished and the red variety occurred in this pit.

T.N. 24-A

Pit IV occurs in the S.E. corner. It is sealed by (5) and cuts into (6). Considerable number of animal bones, a few stone rubbers and some potsherds were found in this pit.

A stone flake probably of Middle Stone Age was found. The potsherds consisted of number of grey ware sherds. Some of them are well burnished, while others show a lesser degree of burnishing. Two sherds of a brown slipped ware have also been found. The pot-sherds of the grey-ware consist of pale burnished variety, slate-coloured ware and also smudged surface. The fabric is comparatively coarse exhibiting large quantities of sand particles and fired in low temperature. A few sherds exhibit traces of ochre wash. Since all the sherds are small in size and form parts of the middle portions of the vessel shapes cannot be made out. The pottery it may be inferred belong to the lower Neolithic horizon of the site.

Blade flake: is made of vein quartz and very coarse in texture. Because of the coarseness of the material working is not clearly visible. This might have been used as a side scraper.

Burial

A burial of the Neolithic Culture was uncovered in T.N. 16 well within the habitation area. It is an extended burial in a roughly oblong cradle-shapped pit, having its major axis in the east-west direction. Two post-holes were seen, one on either side of the oblong burial-pit cut into layers (5) and (6).

Since it is sealed by (4), the transitional layer from the Neolithic to the Megalithic with intrusive chalcolithic elements the burial may go to end of the Neolithic. It may be noted that the grave goods are purely of the Neolithic complex.

The body was lying on its back, with the head towards east and the crossed hands placed on the abdomen. The face was slightly tilting to the right. The legs were stretched. Two large grey-ware pots with globular body and everted rims were placed near the head. These were hand made and slightly burnished. There was also a shallow lipped-bowl and a pottery "neck rest" (head-rest) near the head itself. The pit containing the body and the funerary offerings was filled up with the same soil gathered during its digging. There was no stone or any such appendage to indicate the burial pit. The purpose of the post-holes could not be made out.

The skeleton had undergone much post-mortal deterioration. However, a careful study, after reconstruction of the skeleton, by Sri K. C. Malhotra, the Anthropologist of the Deccan College, Post-graduate Research Institute, Poona, has given sufficient data relating to the racial features. His study has revealed that the skeleton is of a woman aged about 21-25 years belonging to the Mediterranean stock. The individual possesses a medium-sized, high-vaulted head, long face, feebly developed supra-orbital ridge and occipital torus, slightly subnasal prognathism and medium cranial capacity, *i.e.*, about 1.300 C.C. The stature has been estimated to be about 5'2". The present find shows a good deal of similarity with the other neolithic human skeletal remains of the Deccan : Piklihal, Tekkalakota, and Nagarjunakonda. It is possible that the people responsible for the neolithic cultural phase in the Deccan possessed a uniform pheno-type, *i.e.*, Mediterranean and possibly whatever differences are depicted are largely due to admixture. How it is different from those of the chalcolithic skeletal series such as Nevasa, Mohenjodaro and Harappa and the magalithic of southern India such as Adichanallur, Brahmagiri, Yelleswaram has to be ascertained.

Some of the modern communities of Karnataka, such as the Adikarnataka, Agasa, Ganiga and Brahmins like the Babburkamme bear certain physical characterstics similar to the T.-Narasipur specimen. An examination of the teeth of the present skeleton has revealed that the individual was suffering from caries. This is probably the earliest evidence of the existence of that disease, so common in India today.

On archaeological evidence the present buiral is assignable to about the first half of the 2nd Millennium B.C.

The T- Narasipur burial presents some features of its own. Majority of the neolithic burials and the chronologically-nearer, chalcolithic, extended, adult ones of the Deccan have a north-south orientation unlike the one from T. Narasipur. In many of the burials at Brahmagiri, Nagarjunakonda and Piklihal, a spouted pot is noramlly associated but it is absent here. If any libation was poured out, the lipped-bowl was used for that purpose. Apart from the orientation, the attitude and the position of the hands, too, are somewhat peculiar. The burial, further contains a terracotta 'neck-rest'. Its presence, in the burial under study, very near the head (temple) shows that this might have been used as a 'head-rest'. Allchin has already drawn attention to the use of varieties of head-rests in many of the modern primitive communities of South-East Asia and Africa. He has also pointed out that head-rests, almost similar to the T. Narasipur type, were widely in use in the Nile Valley right from pre-Dynastic times down to the Roman period. While wood, stone and metal ones were popular, pottery ones, too, are not unknown there.

Pottery head-rests, are hitherto known in India only in the Neolithic of the Cauvery Valley.

Burial Pottery

1. *Globular pot.*—Pale burnished with traces of ochre wash. It has a short concave neck, everted, featureless rim, and Crude burnishing is seen on the outer-surface as also the neck portion of the interior. Black patches of firing is seen at the bottom and neck portion while smudged-smoky colour is also seen in other parts. The fabric is crude with particles of sand and quartz seen all over.

2. *Globular vase.*—Pale burnished ware with a thick ochre-coating on the upper part of the vessel and on the interior. Smudged black patches are seen on the bottom and the outer surface. It has a concave neck, wide

1. (See the article by F. R. Allchin on the head rest in 'Narsipur Sangam' in 'Studies in Prehistory—"Bruce Foote's memorial Volume" published by the Calcutta University: Ed. D. Sen C. A. K. Ghosh, 1966, Pp. 58-63).

mouth, flaring featureless rim. This is comparatively better burnished than the previous one but has a coarse fabric and sand grains are seen in the body of the pot.

3. *Lipped bowl.*—Pale burnished grey ware, shallow and small in size; at one edge is seen a well-developed lipped spoult. It is also burnished on both sides and has a smudged-smoky surface. Firing is not uniform having a black core in some places while brick-red core is seen in other places.

4. Head rest.—Pale burnished grey-ware, having a smoothened surface. The upper part has slightly concave surface with flat axe-like edges on both sides. The stand of the lower portion has a hollow flaring base. The fabric is coarse with large quantities of sand particles. It is ill-fired and has smudged surface.

VI. Study of the Finds

1. *Pottery.*—Pottery is the most important and informative of the remains left behind by pre-literate societies for the archaeologist to reconstruct their material and economic life. Those people were, wholly in the premetal and to a considerable extent in the metal (Chalcolithic and Early Iron) ages dependant on the pottery vessels for cooking, storing and many other aspects of life. Some pots were also used for ceremonial purposes. Some of these had ornamental devices which were really utilitarian. These include lugged handles, spouts, elaborate rims, pedastals and legs. Some of these vessels which were used to fulfil daily needs were decorated with incised designs, grooves or simple finger tip or nail impressions while greater and painstaking efforts were put forth to prepare the surface to receive painted decorations.

In short, pottery for an archaeologist represents the source material which is durable and most widely used and hence easily available of the remains of pre and protohistoric peoples.

An accurate and reliable picture of these societies based on a study of their ceramic remains should necessarily on depend details of the material used, the techniques employed in its production, the devices used in making them. With these considerations in mind, an attempt can be made below to study the ceramic remains found during the archaeological investigations at the ancient site of T. Narasipur.

The culture-sequence as revealed by the ceramic evidence from the excavations at the site, from bottom upwards is as follows :—

(1) Neolithic,
(2) Intrusive chalcolithic,
(3) Iron Age Megalithic and
(4) Early Historical.

Pottery of Periods I and II

First taking pottery from the neolithic and the intrusive chalcolithic levels, we have vivid and rich evidence of the potter's art from the site. The dominant ware of the period is a grey-ware, mostly burnished often with a thin slip applied and occasionally given an ochre covering or decorated with incisions.

The clay used in the production of these vessels is generally a soft, fine grained variety and is free from any mica particles. Small quartz and sand particles are used as degraissant in many specimens though in some cases, they are absent resulting in a more uniform surface.

Majority of the pottery vessels are undoubtedly hand-modelled, though there is evidence for a limited use of anvil and dabber method as also the use of a turn-table using possibly a flat slab or a concave bottomed, big potsherd for round-bottomed vessels. These latter techniques employed by the potter in his work indicate not only

imaginative and progressive innovations but also indirect influence of the neighbouring chalcolithic cultures on these primitive neolithic potters. For this assumption, there are two suggestive factors :— (*a*) the shapes of pots and the technique employed in their production are more advanced in this peripheral neolithic region of the Upper Cauvery Valley than in the nuclear region of Raichur doab as at Piklihal and (*b*) the surface treatment of the pots from the lowest levels themselves shows an evolved process. While considerable number of vessels from early Piklihal, Utnur and Tekkalakota showed only slightly burnished or un-burnished surfaces and very few yielded evidence of a slip, the specimens from T. Narasipur are more or less completely burnished, some showing a thin slip and knowledge of such other evolved processes. Hence it can be suggested that a fairly evolved neolithic technology, developed elsewhere, probably in the Bellary and Raichur region arrived here at a later date. This position deduced on the basis of the techniques employed by the potter seems to be corroborated by other observations such as the thinness of the neolithic deposit, the suddenness with which the intrusive chalcolithic elements make their appearance and the swiftness with which the overlying megalithic, with all advanced traits, finally sweeps over the original culture.

The pottery is normally fired, having a dark grey or even black core in low fires, as a result of which the firing is not uniform all over the body. Patches of dark, sooty or brownish tinges are not lacking on the grey, pale grey or a pale-brown surface as a result of this differential firing. The burnishing with terracotta dabbers or stone polishers appear to have been done while the pot was dried leather hard but still plastic. The applying of a thin slip with a smooth paste of the same material in the case of grey-coloured wares and with a reddish material on a greyish surface in the case of the pale brown coloured ware is done also before firing. The incised decoration and in a few cases the applique decoration are all made when the pots are still in leather hard, dried condition and before firing. But in the case of the ochre-painted specimens, this is done after firing the pots.

The kilns employed for firing the pots seem to be the ordinary open types in which the pots were deposited and fuel and possibly cow dung were placed and lighted. The heat generated was not very high and the burning was slow and not uniform. This feature is more observable in the lower levels but in the upper levels of the neolithic times, some uniformity in firing method seems to have been achieved. The varied colour patterns in the neolithic pottery ranging from ashy grey to black-grey and pale-brown is mainly due to the conditions of the kiln., and the smoke. The heat would not be uniform in these open kilns and the low temperature and the consequent slow firing would result in a black core or even a half-burnt greyish core. Blotched surface as also the occasional smudging of the surface would also indicate the same low firing condition of the kiln. But dark brown surface as also some cases of brick-red would indicate firing in high temperature which could be achieved in these very kilns occasionally.

A few characteristics of this pottery deserve to be noticed here since they are important and indicate the evolution of the potter's craft. Some of them are devices added on to the vessels to facilitate

handling. (1) Loop handles seem to have been used on these vessels, though no specimen complete in shape has been found : broken pieces of a solid loop handle almost round in setcion and about one inch thick has been found in layer (5). It appears to have been hand-modelled and attached on to the body of the vessel. (2) But in the case of pellet-like lugs about half-an-inch thick and one inch long, they are applied to the surface of the vessel before firing. Though there is only one doubtful specimen of the lug in layer (5) clear use of this device occurs from layer (4), which represents the transitional phase from Neolithic to Chalcolithic and on to the megalithic levels. The use of knobs and spouts occur throughout the Neolithic-Chalcolithic levels of this site. The spouts are rudimentary in some instances, just a hole at a thickened part of the shoulder, while more developed forms with elongated stem are seen from the upper levels, *i.e.*, (4). (4) The spout-device requires a supecial consideration. In a number of cases, this appears just as a pinch at the rim, mostly of simple round-bottomed bowls and in some specimens there are two or more pinches and in one piece of a bowl from (4) this pinch is seen at two places. But a number of specimens from the lowest levels are found to exhibit this feature in different stages of evolution and some of the most evolved specimens being what may be considered as channel-spouts. One example from (6) of T.N. 3, has a channel-spout about one inch long, half-an-inch deep and three quarters of-an-inch wide. From (5) occur at least two specimens which are roughly 2 to 2½ inches long, ½ to ¾ inch deep and 2½ to 3 inches wide. It is these shallow and wide-channel-spouts that become numerically more important in the upper levels while examples similar to the one from (6) do not occur in later levels. These developed and typically channel-like spouts occur along with just attempts at pinching in later levels mostly in (4). While discussing the evolution of this device of channel-spouts, it may be appropriate to point out that at T. Narasipur in a Neolithic culture, assignable, at the latest, to the first half of the 2nd millennium B.C. evidence of the beginning and gradual evolution of this feature occurs. There is no need to derive it from outside the borders of the sub-continent when it occurs in sufficiently early contexts the culture of which appear to be mainly autochthonous and that too, when the different evoluaionary stages are locally traceable. Similarly, evidence for the evolution of the channel-spout occurs from Hemmige very near T. Narasipur and Piklihal near Raichur. The lipped-device at the rims of the bowls are found in considerable numbers as already mentioned but they are not separately considered here as they are treated as a stage in the evolution of the spout.

(5) A number of vessels have some kind of a stand at the base, naturally of round-bottomed vessels such as bowls and small cups. These stands take the form of (*a*) ring pedestals where a small short, round and thick clayer ring is attached at the base of the vessel before firing-one example occurs in (6) of T.N. 16, another from (4) of T.N. 20-A. (*b*) in some cases, this ring pedestal assumes a long inverted-funnel or wide coneshaped stand which may be taken as the proto-type of the later megalithic chalice : the example from (5) of T.N. 17 has two vent-holes at the middle of the height in the available portion, which is about half the full shape and hence might have had four such vent-holes. Another example from (5) of T.N. 11 is too short to exhibit any vent-holes. This kind of stand is lso made

separately and when the stand and the upper vessel were dried leather hard were apparently joined using wet clay as the plaster and then fired. The stand part of the vessel is comparatively of coarser fabric than the upper vessel. (*c*) There are other specimens which have solid legs, probably three or four for each vessel, made separately and attached to the vessel prior to firing. In these specimens, the legs are generally flat or irregularly triangular. One example is from (4) of T.N. 3. Again this variety of legged-vessels are very common in the megalithic culture, particularly in this and the surrounding region. The cylinder-like legs of the vessels found and described from Piklihal are not to be found here in the grey-ware, though they are common in the magalithic wares.

Some characteristics of the surface treatment and decoration of the pottery also may be noticed at this juncture. (*a*) As noted already most of the pottery from the earliest levels exhibit a high degree of burnish, especially in the ashy and slate-coloured-grey wares. The burnished marks are uniform and run almost all round in some cases, while they are short and broken lines in others, which run in horizontal, vertical or even in diagonal direction and applied probably on a turn-table, when the pots were dried leather hard and before firing. While in a considerable number of sherds, the burnish is seen uniformly on both the inner and outer surfaces, there are instances where it occurs only on the outer surface the inner surface with either simply smoothened or left rough. (*b*) slip is applied in some examples. It is thin and in some cases, fine. This also occurs from the earliest levels and becomes finer in the higher levels. The slipped-speciments occur, to a larger degree, in brown-coloured ware, though in grey-black and other wares also it can be occasionally seen. The slip is described as 'dressing' by Allchin (Piklihal report—P. 29) which was appiled to the surface of the vessel before burnishing but apart from this dressing what may be regarded as regular is slip can also be seen in some cases.

(*c*) Incised decoration is a common feature in the brown-coloured ware of this period though it also occurs in other grey-wares. More frequent designs consist of deep finger-nail-impressions arranged in vertical lines, large deep incisions not running in lines but roughly parallel, often at different intervals and occasionally even cutting one another making cross marks. In some cases, incised lines make herring-bone patterns. A few instances of raised bands on which deep notches are cut can also be seen. In another example is seen a rib-pattern incised on both sides of a raised ridge-like stem. There are a few sherds again where the incision is irregular without making any definite pattern but consists of a number of slanting lines often crossing one another. The incisions seem to have been made with some hard pointed instrument, sometimes quite deep while in others they are only shallow. All the incisions are made before firing when the posts are dry and leather hard.

(*d*) No clear evidence of rustication or surface roughening is seen in this site though such examples are found from Piklihal (Allchin, P. 29).

(*e*) Applique decoration is not altogether absent though employed rarely on the pottery of these levels. In a few instances there are small pellets applied to the outer part of the body of the vessel to

be used as lugs for handling. In one case a solid handle was made and applied to the vessel. But as a true decorative motif this technique was not used to any large extent.

(f) A few instances of finger-tip-decorated specimens are also found. They are very few in the earlier levels occurring only on the rim or base portions of jar pieces, but become more numerous in post-neolithic-chalcolithic levels.

(g) Perforated examples occur in almost all the levels, though they become dominant in late neolithic-chalcolithic levels. The perforation is fine on some thin-sectioned vessels while they are very crude in thick-sectioned-vessels. The performation was apparently made on leather hard vessels with a blunt-edged stick or other such object.

Period III : Pottery.—Four main varieties of pottery have been found from this phase.

They are (A) Black-and red, (B) black-polished, (C) red-polished and (D) the ill-fired red ware. All these fabrics are well known to be associated with the South Indian Megalithic culture and are invariably associated with from almost all the sites in the region. It may be noted that the black-and-red ware, forms the most characteristic of them and to a lesser extent the black-polished ware. The ill-fired red ware which displays neither a fine fabric, polish nor a good slip is the typical 'common ware' supplying essential but less fashionable utensils like kitchen ware, storage vessels and such other non-luxury items.

Black-and-red-ware.—has a highly polished and burnished surface, it is generally treated with a bright slip, is made of fine well lavigated clay with occasional use of sand particles as degraissant. Very rarely the clay contained particles of mica and still rarely was it salt-glazed. In fact it is pointed out that there was no salt glazing in this pottery.[1] " it may be that the dressing applied had a different rate of shrinkage to the body clay, and that this together perhaps with the presence of small quantities of organic matter, salt or other fluxes, under the typical firing conditions of a bonfire or " village " pit. firing' technique, *i.e.*, the pots were kept inverted in the kiln and kiln, in which the temperature rose at some stages too steeply, resulted in the crazing ". It was fired by a special method called 'inverted firing' technique, *i.e.*, the posts were kept inverted in the kiln and hence the interior and the portions around the neck were burnt under reducing conditions and became black while the rest of the exterior was burnt under oxidizing conditions and assumed a bright-to-orange red or deep brown colour. The firing seems to have been, usually in low temperature since the core became greyish or blakish in colour, was not hard and would crumble if kept in wet conditions for a long time. But the surface was highly burnished and polished to a glossy surface by rubbing the surface with the juice of Tuthi or Abutilon Indicum which would enable it to resist acids and water.[2] This ware is mostly wheel-thrown probably on a slow wheel or turn-table, only exceptions being the large storage jars and troughs besides the devices

1. Allchin, Piklihal Excavations, 1960, pp. 66-67.

2. See Hunter's Report in Indian Antiquary, 11 1873 P. 224, as also Rawson in MAN, LIII, March 1953.

like handles, legs of vessels etc. The clay seems to have been well lavigated into a smooth paste, often admixed with small quantity of sand and small particles of quartz as tempering material or degrassant. Whether these sand and quartz particles were intentionally added or they were naturally present in the clay cannot be decided conclusively[1]. The pottery is mostly plain, but occasional simple grooves, incised strokes, finger-tip and nail impressions and also rarely ripple marks occur.

While speaking of the techniques of manufacture of this pottery, it is interesting to note that a pottery dabber has been found from Megalithic phase *i.e.*, layer three of T.N. 23. It is made of medium-grained clay and well burnt. The surface has a thick and fine slip and burned to orange-red colour, one portion having a black surface. It has a larger base with a convex working surface, a well defined waist and a comparatively narrower handle : Height 3¼″, bottom 3″, Waist 2″, top 2¼″. This dabber must have been used for beating the pots still wet for shaping them and for smoothening the surface, etc. Similar dabbers have not been reported from any of the sites. Allchin has spoken of the use of dabber in the manufacture of upper neolithic pottery at Piklihal[2]. He also cites similar objects from Sanganakallu and Maski[3]. But Subba Rao and Thapar would describe them as lids and Allchin himself describes his finds from Piklihal, four of which he has illustrated as lids or dabbers. But the one from T. Narasipur is a typical and well shaped dabber.

Another interesting find from T. Narasipur is a small potsherd, 1.8″ in length and 0.4″ in width which has been rubbed smooth on the sides and one edge has been medially sharpened. It was most probably used for incising strokes or grooves on the surface of wet pots particularly the marks which are usually described as nail impressions.

The black-polished ware is almost identical in fabric and texture the difference being in the colour of the ware. The all-black surface is a result of firing under completely reducing conditions.

The red-polished ware is again a highly polished and well-fired pottery and generally the glossy or high polish is found only on the outer surface and the neck portion of the interior. The rest of the interior has only a roughly smoothened surface. But in some shapes such as dishes and bowls, the polish extends all over. This ware is comparatively inferior in body fabric and in the lavigation of the clay but is well fired in open kilns. Though this specimens are not altogether absent, majority of them exhibit a comparatively thick section.

---

1. Allchin feels that these were originally present in the clay as it was obviously from a secondary deposit in that area (Piklihal, Raichur Distrct); while other Indian archaeologists like Thapar (Ancient India No. 8) P. 8 and A.I. No. 13, P. 50; Banerjee and Soundararan, A.I. No. 15, P. 20, imply that these materials were added as tempering material.

2. Piklihal excavations, P. 27, Type 40, Pl. 28.

3. B. Subba Rao, Stone Age cultures of Bellary, Pl. VII, type VIII and B. K. Thapar Ancient India No. 13, Fig-11, Types 16 and 18.

The coarse-red ware is often shabby, coarse in fabric, normally not polished and slipped and ill-fired. It was meant for rough use in daily needs.

Headrests

Among the most interesting and unique objects found from the excavations at T. Narasipur may be mentioned the so-called headrests. These headrests are not found from any other Indian site whether of Neolithic phase or otherwise. It must be noted here that a terra-cotta object described as head-rest has been found from Chanhudaro (E.J H. Mackay, 1943) and another doubtful specimen of a head-rest made from an ordinary brick from Mohinjodaro (further excavations at Mohenjodaro, E.J.H. Mackay, 1938). Probably these specimens may be nearly contemporaneous with those from T. Narsipur.But these specimens from the Indus Valley are far removed both in space and culture and there may not be any justification for us to seek a parallel with them for our T. Narasipur examples. Further the shapes and techniques employed in their production also vary very much. Foote was the first to note their occurrence. He suggests that they were probably used as head-rests but no confirmation was available in support of the view. The T. Narisipur excavations have new yielded some evidence which strengthens the above opinion. In a burial of the neolithic phase occurs an extended human skeleton near the head of which is placed a head rest. Incidentally, it may be mentioned that this is the only complete specimen so far found, though more than half-a-dozen broken specimens have come from the site. All of them in shape, fabric and finish closely agree with one another.

It is further noted that one piece of a head-rest in dark ashy grey colour has been found from (1) of T.N. 16. On the upper part of this head-rest, there is a hole about $\frac{1}{4}$ inch in diameter pierced right through to the hollow part of the stem. Emanating from this central hole occur double lines of dots on all the four sides which are roughly $\frac{3}{4}$ inch in length. This is the only specimen of the head-rest found so far with any attempt at decoration.

Catalogue Raisonne, 1914; Mysore Archaeology Department collected further specimens from the site. Allchin who saw these specimens in the Madras Museum and Mysore Archaeology Department has published a note on them in "'Studies in Prehistory, wherein he notes the occurrence of rock bruisres depicting similar objects at Piklihal. Robert Bruce Foote Memorial Volume" Ed. D. Sen and A. K. Ghosh, 1966.

POTTERY FROM LAYER (6) AT T. NARASIPUR

(1) Burnished Grey

(a) Grey with a spread of Ochre

TN	8	(6)	Thick	Large sherd of hand-made burnished Grey ware with a thick plash of red ochre all over, gritty coarse fabric, part of a lugged bowl (large vessel with a lip-like vertical projection at the top slightly bent outwards). (Similar to Piklihal, Pl. 25, 15a and Sanganakal pl. VII, XVI).
TN	8	(6)	Thick	Similar to the serial number 1 above.
TN	8	(6)	Thick	Rim piece of a bowl in the above ware. The ochre is applied thickly, probably with a brush. (Piklihal pl. 24, 4; Brahmagiri, Fig. 22, T66).
TN	8	(6)	Thick	Rounded Rim of a large vase, with flaring mouth. The ochre wash is thickly but unevenly spread leaving occasional patches of grey colour. The core is extremely crude and gritty and firing is not uniform. (Sanganakal, Pl. IX, T. XIX).
TN	3	(6)	Thick	Sharpened Rim piece of a large bowl with slightly bulging sides. The ochre wash is thick at the rim, in the lower portions only traces of it. Crude gritty black core (Brahmagiri, fig. 22, T. 61).
TN	3	(6)	Thick	Rim piece of a large bowl with slightly bulging sides. Buff-slipped with black patches. (Similar to the above—No. 4).
TN	3	(6)	Thick	Rim piece of a vase with flaring mouth. The ochre wash is largely worn off. Dark sooty patches on the exterior. (Similar to No. 3 above).
TN	1	(6)	Medium	Rim piece of a vase with flaring mouth. Buff slipped. (Similar to No. 3 above).
TN	4	(6)	Medium	Rim piece of a vase with flaring mouth. Brown slipped probably also with ochre wash (similar to No. 3 above).
TN	7	(6)	Thick	Rim of a large vase with flaring mouth and sharpened rim. Dark-brown slipped. (similar to No. 3 above, but the rim is more concave).
TN	7	(6)	Thick	Similar to the above.
TN	3	(6)	Thick	Rim piece of a straight sided deep bowl with a pinched projection.
TN	10	(6)	Thick	Bottom sherd of a perforated vessel, coarse with black-core (similar to No. 1 above). (Piklihal, pl. 28, 45).

(b) Grey, ashy

TN	3C	(6)	Medium	Rim piece of a bowl with rounded rim; illfired black crude core. (Piklihal, P-1, 24, 5a, Brahmagiri Fig. 20, T 36a; Maski Fig. 11, T. 8b).
TN	11	(6)	Thick	Piece of the channel-spout, brown slipped outside, coarse with black core. (Pikhhal P.l.25, 15a; Sanganakal P l. VIII, XV, Brahmagiri, Fig. 21, T. 44).

TN	6	(6)	Thick	Neck piece of a long necked-vessel with externally bent rounded rim.
TN	20A	(6)	Medium	Sherd of a large vessel. The interior has an uneven surface. The core is crude and black.
TN	20A	(6)	Medium	Sherd of a Vessel burnished on both sides, the outer face having ashy slip while the interior has brownish slip.
TN	20A	(6)	Thin	Sherd burnished on the outer face while the interior is rough and has greyish core.
TN	23	(6)	Thick	Rim piece of a large vase or jar with long flaring neck. rounded him. It has light ashy burnish on both faces, the surface being uneven on the outer neck. The core is dark grey. (Piklihal Pl. 26, 28d; Brahmagiri, Fig. 20, T40; Sangankal pl. IX, XIXe).
TN	23	(6)	Thick	Similar to the above (15).
TN	7	(6)	Thick	Rim piece of a large bowl with bulging sides, featureless rim, finely burnished on both the surfaces, the interior exhibiting the thin grooves of abrasion. The core is grey. (Piklihal, Pl. 24, 5f, Brahmagiri, Fig. 22, T. 61).

(c) *Grey, Slate-coloured*

TN	1	(6)	Medium	Rim piece of vase with long flaring neck, rounded rim slate coloured on the exterior while buff coloured on the interior Striation-like marks are visible on the neck, indicating probably use of a slow-wheel, (similar to o. 15 above).
TN	3	(6)	Thick	Rim piece of large shallow bowl with a sharpened rim finely burnished exhibiting irregular and broken grooves of burnishing. Slipped on both sides with a black core (Piklihal Pl. 24, 2h; Brahmagiri Fig. 23, T. 73).
TN	3	(6)	Thick	Similar to the above, but somewhat thicker in section. There appears to be traces of ochre wash, but worn off.
TN	1	(6)	Thick	Rim piece of a bowl. Coreis black, Rounded rim.
TN	7	(6)	Thick	The shoulder portion of a large pot, Burnished on both sides. The core is black.
TN	7	(6)	Thick	Similar to the above.
TN	15	(6)	Medium	The neck portion of a vase with flaring neck and round rim. Well burnished. The core is black. (Piklihal Pl, 26, 29g; Brahmagiri, Fig. 20, T. 40; Sanganakal, Pl. IX, XIXh).
TN	15	(6)	Thin	The bulging side and shoulder of a round pot. Highly burnished on the exterior while burnished and cruder on the interior. Striation marks are visible on the interior.
TN	20A	(6)	Medium	A small sherd well burnished on the outer surface with brown slip inside.
TN	10	(6)	Medium	The shouldered neck-portion of a pot with wide mouth, flaring neck, slightly concave on the exterior and featureless rim, well burnished on both faces, (Piklihal Pl. 27, 34h; Brahmagiri Fig. 20, T 41; Sanganakal Pl. IX, XIX b).

(d) Grey, black

TN	1	(6)	Thick	The shoulder and neck portion of a vase with flaring neck, well burnished on to the sides. Dark grey core. (Piklihal Pl. 26, 28a; Brahmagiri Fig. 20, T 37; Sanganakal Pl. IX, XIXa).
TN	3	(6)	Medium	Piece of a bowl with slightly bulging sides and sharpened rim. The core is black (on the exterior one portion is black whereas near the rim it is slate-coloured)- Traces of ochre are also visible. (Piklihal Pl. 24, 4dj: Br. Fig. 20, 40(a)).
TN	10	(6)	Thick	Piece of a bowl with bulging sides and thin rounded rim. The core is sooty black. (Br. Fig. 22, T 65).
TN	4	(6)	Medium	Rim piece of a straight-sided bowl with deep flange on the interior with black core.
TN	10	(6)	Medium	The middle and shoulder portion of a large pot. The core is sooty black.
TN	15	(6)	Thick	The rim portion of a large bowl with bulging sides, flattened and slightly grooved rim.
TN	15	(6)	Thin	Neck portion of a small vase with flaring and slightly concave neck and rounded rim. The core is brownish due to ill-firing. Clear striation marks are visible on the interior below rim.
TN	20A	(6)	Thin	Sherd of a pot. Comparatively well burnished on the exterior.
TN	20A	(6)	Thin	Similar to the above, somewhat brownish in colour.
TN	20A	(6)	Thin	A sherd of a pot, well burnished, black on the exterior and brown on the interior.
TN	16	(6)	Thick	Bottom portion of a ring pedestalled-vessel. Core is black. (There is nothing which has a comparable base from any of these neolithic sites but type 66 of Pl. 33 from Piklihal is the nearest parallel which has a ring base, but without a central lump as in this case).

(e) Grey, incised

TN	1	(6)	Thick	A sherd with finely incised lines forming irregular rectangle enclosing a cross cut by another line, burnished grey. Slate-coloured.
TN	7	(6)	Thick	A potsherd, coarse and grithy. The burnishing appears to have worn off. Slightly incised double lines-one pair vertical and another horizontal. The horizontal lines touching one of the verticals.
TN	11	(6)	Medium	Coarse, brownish sherd with irregular deep horizontal strokes on the exterior.
TN	11	(6)	Medium	Brown same as above (No. 36) but incised lines are parallel.
TN	1	(6)	Medium	Grey sherd with deep incised lines on the exterior.
TN	15	(6)	Medium	Coarse, brownish-grey sherd with deep incisions $\frac{1}{2}$ to $\frac{3}{4}$ of an inch long on the exterior.
TN	15	(6)	Thick	Coarse, ashy grey sherd with a black core. Deeply incised strokes.
TN	11	(6)	Thick	Sherd with a raised thick band with slanting strokes on both sides of the band.

TN	15	(6)	Medium	Brown slipped sherd, coarse with slight incisions on the exterior.
TN	15	(6)	Medium	Similar to the above. The incisions are slanting and deeper proceeding from a thick incised line.
TN	15	(6)	Thick	Sherd, ashy grey with horizontal bands alternating with bands of slanting strokes. Slightly incised.
TN	15	(6)	Medium	Similar to the above. The incised lines are irregular.
TN	20A	(6)	Thick	Brown grey sherd, coarse, deeply incised on the exterior.
TN	24A	(6)	Medium	Black grey sherd with deep criss-cross incision.
TN	24	(6)	Medium	Black grey small sherd with deep incision.
TN	11	(6)	Thick	Sherd with wide raised band impressed with finger-nail incision. Brown slipped ware.

(f) Grey, lip painted

TN	3	(6)	Thick	Rim portion of a large shallow bowl with straight flaring sides and rounded rim. On the rim the red ochre painting is visible whereas an irregular splash of the same is visible on the exterior also. It is a well burnished, black grey sherd. (Piklihal, Pl. 24, 2e, Brahmagiri Fig. 19, T31).
TN	22	(6)	Thick	Rim piece of a bowl of slate-grey with black core. The red ochre painting is visible on the rim and a splash of the same on the lower part of the exterior body. (Piklihal Pl. 24, 2a ; Br. Fig. 22, T66).

(g) Brown pale-burnished

TN	7	(6)	Thick	The rim piece of a large bowl with an irregular pinched lip. Coarse, Brownish grey core. (The pinching is very unshapely and seems to be a crude attempt at spouting).
TN	11	(6)	Thick	Similar to the above. Rim place of a channel-spouted vessel ?
TN	15	(6)	Medium	The side piece of a deep bowl with straight side and obliquely cut rim. Slightly protruding on the interior of the rim. Well burnished.
TN	11	(6)	Medium	Rim piece of a deep bowl with out turned rim, flattened on the top resembling a flanged or obliquely cut rim. Burnished particularly on the interior. (Similar to 48 above).
T	11	(6)	Medium	Sherd of a knobbed vessel, coarse with greyish core (Piklihal, Pl. 25, 24a ; Br. Fig. 23, T76).

POTTERY PIECES FROM LAYER (5)

(a) Grey with a spread of Ochre

TN	3	(5)	Medium	Rim piece of a deep bowl with slightly bulging sides, featureless rim, brown slip with black core. (Piklihal Pl. 24, 5d ; Br. Fig. 22, T63).
TN	3	(5)	Medium	The rim and side of a large deep bowl with flaring sides and featureless rim. A number of burnishing grooves are visible on the interior. Thick spread of ochre is also seen (Piklihal, Pl. 24, 2h).

TN	3	(5)	Thick	Rim piece of a pot with flaring mouth, featureless rim, brown slipped with black core. (Piklihal Pl. 26, 28C).
TN	20	(5)	Medium	Rim piece of a base with flaring mouth, featureless rim, brown slipped with black core. (Piklihal Pl. 26, 28a).
TN	16	(5)	Medium	The rim and side of a bowl with bulging sides, thickned rim, deep grooves on the exterior rim. (Piklihal, Pl. 24, 9c but for the grooves).
TN	20	(5)	Thick	Rim piece of a vase with flaring mouth, sharpened rim, brown slipped with black core. (Piklihal, Pl. 26, 28d, Sgk. Pl. IX XVIIIh).
TN	10	(5)	Thick	Similar to the above but the neck is slightly concave. (Piklihal Pl. 26, 34d; Sgk. Pl. IX, XIXc).
TN	23	(5)	Thick	Rim piece of a vase with flaring concave neck, bbrown slipped with black core. (Similar to the above, No. 4A).
TN	23	(5)	Thick	Similar to the above.

(b) Grey, ashy

TN	18	(5)	Medium	Neck piece of a pot concave on the exterior featureless rim, coarse fabric with dark grey core. Sand and quartz particles are present in the clay as degraissant. (Piklihal, Pl. 26, 34j; Br. Fig. 22, T.48 is slightly different).
TN	23	(5)	Thick	Rim portion of a vessel with flaring concave neck, featureless rim, brown slipped with black core. (Piklihal Pl. 26, 31c: Br. Fig. 22, T48).
TN	6	(5)	Thick	Rim piece of a straight-sided bowl, featureless rim, black core. (Piklihal, Pl. 24, 2a; Br. Fig. 23, T73).
TN	6	(5)	Thick	The bottom portion of the pedestal, crude, coarse.
TN	4	(5)	Medium	Sherd of a perforated vessel, coarse, sooty black core.
TN	17	(5)	Medium	The portion of a pot with concave neck, everted, featureless rim, coarse and illfired. (Piklihal, Pl. 26, 28a, Sgk. Pl. VI, VIIk).

(c) Grey, Slate-coloured

TN	15	(5)	Thick	Rim piece of a straight-sided bowl, featureless rim, well burnished on both faces. (Piklihal, Pl. 24, 2h; Br. Fig. 23, T73).
TN	4	(5)	Thick	Rim piece of a conical bowl with an obiliquely cut rim slightly projecting inside and a thin groove externally below the rim.
TN	4	(5)	Medium	Rim and body portion of a small cup with bulging sides internally slightly thickened rim. Core is sooty grey.
TN	3	(5)	Thick	Piece of bowl with a small but well developed channel-spout, coarse and ill-fired, coarse smear or slip outside, burnt brownish. (See Br. Fig. 23, T77 and Sgk. Pl. VIII, XVc & d).

(d) Grey, Black

TN	11	(5)	Thick	Sherd of a pot (?), coarse fabric, ill-fired with a grey core.
TN	1	(5)	Thick	Bottom portion of a footed-vessel with pellet-like leg or side piece of a pot with pellet-like lug-handle.

TN	7A	(5)	Medium	Rim piece of large bowl with bulging sides and featureless rim. Burnished on both sides with blackish core. (Piklihal, Pl. 24, 5f ; Br. Fig. 22, T63).
TN	7A	(5)	Thick	The shouldered part of a large sized pot, ill-fired, coarse, darkbrown core.
TN	11	(5)	Thick	Rim piece of a bowl with bulging sides featureless rim, crude and ill-fired. Sand and quartz particles are in abundance in the core which is blackish. (Piklihal, Pl. 24, 7a ; Br. Fig. 22, T61).
TN	23	(5)	Thick	The rim piece of a straight-sided bowl. Rim externally thickened. (Piklihal Pl. 25, 12d).

(c) Grey, incised

TN	4	(5)	Thick	Sherd of slate-grey colour, deeply incised, slanting vertical strokes.
TN	4	(5)	Thick	Sherd of sooty brown grey-ware, vertical, deep incisions resembling finger-nail impressions.
TN	4	(5)	Thick	Sherd of black grey-ware with a raised ridge on the exterior and deep finger-nail incisions.
TN	4	(5)	Thick	Sherd of brown-slipped grey-ware with a ridge on the exterior and deep finger-nail incisions.
TN	4	(5)	Medium	Sherd of slate-coloured grey-ware deep, vertical incisions.
TN	4	(5)	Thick	Sherd of an ashy grey-ware with deep incised lines, slanting-vertical and horizontal.
TN	4	(5)	Thick	Sherd of a pale brown-ware with deep finger-nail incisions on the exterior, coarse and ill-fired.
TN	4	(5)	Medium	Sherd of a black-grey ware with vertical and slanting incised lines on the exterior.
TN	4	(5)	Medium	Sherd of black grey ware with vertical and slanting incisions occasionally cutting each other.
TN	10	(5)	Thick	Sherd of brown-slipped ware with slight incised lines almost resembling mat impression.
TN	11	(5)	Medium	Sherd of black grey-ware with slanting-incised lines. Some deep and others leaving only an impression.
TN	11	(5)	Medium	Sherd of brown-slipped grey-ware with incised slating strokes meeting each other resembling the ribs of a leaf.
TN	19	(5)	Thick	Rim pice of a straight-side bowl in brown sooty grey with traces of ochre spread on the exterior. On the outer face bands of thin incised, slanting lines cut each other.
TN	15	(5)	Thick	Sherd of sooty brown grey-ware with several thin slanting grooves cut by deep incised horizontal lines.
TN	15	(5)	Medium	Sherd of ashy grey-ware with thick incised horizontal lines.
TN	18	(5)	Thick	Sherd of ashy grey-ware with several horizontal and slanting-vertical lines cutting each other forming small rectangles.
TN	26	(5)	Medium	Sherd of black grey-ware with deep slanting incisions.

(f) *Grey, lip-painted*

TN	4	(5)	Medium	Rim piece of a straight sided bowl, featureless rim, slate-coloured grey-ware, ochre-painted at the rim.
TN	14	(5)	Thick	Rim piece of a straight-sided bowl in sooty brown grey, featureless rim and black core. Painted on the rim in red ochre.
TN	18	(5)	Thick	Neck and rim portion of a large vase with concave neck, everted and featureless rim in ashy grey ware. Coarse in texture with black core painted at the rim in red ochre.
TN	23	(5)	Medium	Rim piece of a bowl with slightly bulging sides in ashy grey with slightly thickened rim. Deep groove below the rim on the interior. Painted on the rim in red ochre.

(g) *Grey, Pale, burnished*

TN	3	(5)	Thick	The lug of a large basin in brown slipped ware.
TN	3	(5)	Thick	Neck and rim portion of a large vase with concave neck, long and flaring neck, featureless rim.
TN	3	(5)	Thick	The rim and neck portion of a large pot, concave neck, everted, featurless rim.
TN	6	(5)	Medium	Similar to the above.
TN	11	(5)	Thick	The bottom portion of a legged-vessel.
TN	12	(5)	Medium	The channel-spout of a large sized-bowl in grey ware black inside and pale-burnished outside. The channel-spout is well-developed, the end being bent downwards.
TN	12	(5)		Similar to the above but uniformally pale-burnished through out.
TN	16	(5)	Medium	The handle of an handled-vessel round in section about 10 inch in diametre and brown-slipped. The handle appears to be hand-modelled separately and applied to the vessel.
TN	17	(5)	Medium	The pedestal base of a chalice-like vessel. The inside of the vessel is finely black-polished, whereas the exterior of the base is sooty brown, ill-fired and coarse. At the middle of the pedestal are holes pierced, probably vent-holes.
TN	23	(5)	Thick	Neck piece of a vase with slightly concave neck, flaring mouth and featureless rim. Due to firing the brownish slip has become ashy brown.
TN	23	(5)	Thick	Similar to the above.
TN	24A	(5)	Thick	Bottom portion of a thick vessel or storage jar with mat impression.

Grey-ware with ochre spread :—

TN	10	(4)	Thick	The neck portion of a large-sized pot with raised ridge below the neck. Though mainly ashy-grey patches of ochre splash are visible on the exterior.
TN	18	(4)	Thin	The rim and side of a deep bowl, well burnished though the surface is irregular. Burnishing marks are visible on both the faces. The rim is featureless. The core is smooth and black (Piklihal, Pl. 24, 4c ; Br. Fig. 22, T. 63).

TN	19	(4)	Thick	The neck and rim portion of a large jar with bulging belley, straight neck and featureless rim, well burnished exhibiting burnishing groves. A thick splash of ochre on the outer face. (Piklihal Pl. 26, 34c closely corresponding to Br. 20, T. 41).

Grey, Ashy :—

TN	3	(4)	Medium	Sherd of a perforated vessel.
TN	3	(4)	Thick	Sherd of a perforated vessel.
TN	3	(4)	Thick	Sherd of a channel-spout (?), ashy grey inside with pale-burnished brown surface on the exterior.
TN	6	(4)	Medium	The rim piece of a straight-sided bowl with clubbed and everted rim.
TN	6	(4)	Thick	Sherd of a thick vessel with a raised thick ridge and a pellet-like lug below the ridge, probably brooken stud of a looped handle. (See Sgk. Pl. 8, XVII for the lug).
TN	7A	(4)	Thick	Pot sherd with a thick ridge applied on the exterior.
TN	7A	(4)	Thick	Rim portion of a straight-sided bowl with slightly sharpened rim, black core, with a number of burnishing scratches on the interior, black uniform core. (Piklihal Pl. 24, 4c ; Br. fig 22, T63).
TN	10	(4)	Thick	Channel-spout piece of a spouted vessel, low firing, crude fabric, core red with sooty black patches.
TN	15	(4)	Thick	Sherd of a large vessel with a horizontal finger tipped decorated band on the exterior, ashy grey on the outer face, deep brown on the inner face.
TN	16	(4)	Medium	Piece of a small terracotta lamp with one wick mouth visible, hand modelled with an irregular surface.
TN	17	(4)	Thick	The neck and rim portion of a large vessel with concave neck, everted, featureless rim, coarse fabric with greyish core. (Br. Fig 20, T. 21).
TN	17	(4)	Medium	The neck piece of a vessel with a flaring long neck and featureless rim, well-burnished. (Piklihal Pl. 26 ; 28c ; Br. Fig. 22. T. 50).
TN	18	(4)	Thick	Sherd of a perforated vessel, coarse fabric.
TN	19	(4)	Medium	Piece of a deep bowl with flaring sides, featureless rim. (Piklihal Pl. 27 2h).
TN	20	(4)	Thick	The neck and rim portion of a pot or vase with fully everted and slightly thickened rim, well-burnished exhibiting burnishing groovees on he exterior. (Piklihal Pl. 27. 34K).
TN	23	(4)	Thick	The neck piece of a pot with flaring and long neck, featureless rim.
TN	23	(4)	Thick	Rim portion of a deep bowl, crude and irregular surface, coarse fabric with an alternated pinching of the rim which is not well formed.
TN	23	(4)	Thick	Channel-spout of a thick vessel irregularly shaped and ill-fired, uneven surface, coarse, and gritty core. (Br. fig. 23. T77).

Grey, slate coloured.—

TN	6	(4)	Thick	The neck and rim portion of a large sized vase with wide mounth, concave neck, with everted, featureless rim. Very finely burnished on both the faces almost like glaze. Appears to have been turned on a turn-table on slow wheel. The core is black and comparatively smooth. (Piklihal Pl. 27, 24m ; Br. Fig. 20, T. 41).
TN	10	(4)	Thick	The rim and side of a deep bowl with bulging sides, slightly sharpened and internally cut rim comparatively well burnished with sooty black core. (Piklihal Pl. 24, 7b).
TN	10	(4)	Thick	The neck and rim portion of a large vase or jar with slightly concave neck long everted and featureless rim comparatively well burnished. Very similar to item 21 described above (Piklihal Pl. 26, 34d ; Br. fig. 20, T41).
TN	10	(4)	Thick	Large sherd of the type described above. (Piklihal Pl. 26, 34d ; Br. fig. 20, T41).
TN	23	(4)	Thick	The rim portion of a large deep bowl with straight sides, featureless and slightly everted rim, burnished. (Piklihal Pl. 24, 10C).
TN	10	(4)	Thick	Sherd of a vessel with a thick large pelett-like lug on the exterior. (See Piklihal Pl. 25, 15a and SGK pl. Viii, xvii).

Grey, Black :—

TN	10	(4)	Thick	The rim portion of a large vessel with flaring neck, featureless, slightly flattened rim. One portion of the sherd has brownish surface probably due to differential burning or encrustation with reddish soil.
TN	11E	(4)	Thick	Miniature flat bowl piece with straight sides, sharpened rim : the waist resembling blunt carinated bottom, ill-fired. (Piklihal Pl. 24, 8 ; Br. fig. 23, T72). The specimen from T.N. is smaller in size).
TN	15	(4)	Thick	A perforated sherd.
TN	16	(4)	Thin	The shoulder and rim portion of a globular vessel, with short neck, externally thickned and slightly everted rim, well burnished on both the faces probably turned on a turn-table or slow wheel, with thin grooves below the neck on the exterior well-lavigated clay, zurnt at reducing conditions. (SG Pl. viii, vi ; Piklihal Pl. 25, 20K).
TN	17	(4)	Thin	The shoulder portion of a globular vessel similar to the one described above turned on slow-wheel, a small brownish patch near the broken edge suggests that it may be a sherd of black-and red-ware.
TN	19	(4)	Medium	The rim portion of a large vase with long flaring neck and featureless rim, well burnished specially on the outer surface ill-fired with stooty black core. (Piklihal Pl. 26, 2 a ; Br. fig. 20, T40).

Grey, incised.—

TN	15	(4)	Medium	Shered of dark ashy-grey with a thick slanting incision.
TN	23	(4)	Thick	Sherd of a large jar with applied thick ridge on the exterior with rope pattern.

TN	18	(4)	Medium	Sherd of ashy-grey ware with the exterior incised with thin parallel lines as though scratched with a comb horizontally.
TN	3	(4)	Thick	Sherd of red ware with deep finger-nail depressions.
TN	7	(4)	Thick	Sherd of red ware with slanting horizontal strokes.
TN	11	(4)	Thick	Shered with deeply incised vertical lines.
TN	17	(4)	Medium	Sherd of dark brownish grey ware with deeply incised grooves, appear to be starting from a common base projecting like the prongs of a trident.
TN	19	(4)	Medium	Sherd of ashy-grey ware with deep finger-nail incisions.
TN	20A	(4)	Medium	Sherd of black-grey ware with deeply incised vertical lines.
TN	23N	(4)	Medium	Sherd of pale burnished grey ware with deep, finger-nail incisions.
TN	18	(4)	Thick	Sherd of ashy grey-ware with irregular and deeply incised lines on the exterior.

Grey, pale burnished :—

TN	3	(4)	Thick	Bottom-piece of a very thick trough exhibiting mat impression on the bottom.
TN	3	(4)	Thick	Similar to the above.
TN	3	(4)	Medium	The bottom-portion of a legged-vessel with thick solid leg, coarse, ill-fired, the leg burnt brickred.
TN	3	(4)	Medium	Piece of a small channel-spout.
TN	3	(4)	Medium	Piece of a flattish channel-spout, irregular surface.
TN	3	(4)	Medium	Piece of a channel-spouted bowl. The channel-spout is well shaped and comparatively long.
TN	3	(4)	Medium	Piece of a long channel-spouted vessel.
TN	3	(4)	Medium	Small piece of a channel-spout.
TN	12	(4)	Thick	Well developed channel-spout of a bowl.
TN	15	(4)	Medium	Short, well formed channel-spout of a bowl.
TN	15	(4)	Medium	Short, well formed channel-spout of a bowl.
TN	3	(4)	Thick	The neck and rim portion of large-sized globular pot or vase with flaring neck and featureless rim. Black, crude core, (Piklihal pl. 26, 28a ; Br. fig 20, T41).
TN	7	(4)	Medium	The neck portion of a globular-bodied vase with everted and featureless rim, well burnished and slipped. (Piklihal pl. 27, 34m ; Br. fig 20, T36b).
TN	10	(4)	Medium	The neck portion of a globular pot with sharp neck, flaring and out-turned neck, featureless rim. Burnished. (Piklihal) pl. 26, 28a ; Br. fig. 20, T41)
TN	10	(4)	Medium	The neck portion of a large vase with flaring neck and featureless rim. (Similar to the above).
TN	11	(4)	Medium	Miniature terracotta lamp with one wick mouth burnt to terracotta red (See SGK pl. viii).
TN	11	(4)	Thick	Rim portion of what appears to be a large pot with uneven surface, ill-shaped. The rim is featureless. (Probably an attempted pinching of the rim is seen). Burnished, coarse fabric, sooty black core and ill-fired.

TN	12	(4)	Thin	The upper portion of a large pot with bulging sides with thick raised groove below the neck, with externally bent thickened rim, coarse fabric, ill-fired.
TN	16	(4)	Thick	Similar to the above. The body being globular and instead of the raised groove, two paralled grooves on the shoulder.
TN	17	(4)	Medium	The rim portion of a straight deep bowl, rim externally thickened, burnished surface, grey-core.
TN	17	(4)	Medium	A straight-sided deep vessel with externally bent thickened rim. (Piklihal Pl. 25, 19b).
TN	18	(4)	Thin	The shoulder portion of a bluntly carinated vessel with slightly concave neck, well burnished.
TN	16	(4)	Thick	Piece of a miniature flat bowl.
TN	18	(4)	Medium	The portion of a deep bowl with bulging sides and featureless rim—burnished. (Piklihal Pl. 24, 5b; Br. fig. 20, T36a).
TN	19	(4)	Thick	The rim portion of a large jar with flaring and featureless rim.
TN	20A	(4)	Thick	The bottom portion of a large jar with ring pedestalled base.
TN	24	(4)	Thin	Perforated sherd.
TN	25	(4)	Medium	Sherd of a spouted vessel.
TN	24A	(4)	Thick	Large deep bowl with featureless rim, pinched in two places at the rim. Crude texture and ill-fired. Has lime encrustation on both the sides. (Piklihal Pl. 25, 14a, b and c; also see SGK pl. viii, xvc and d).

Grey, Lip painted—

TN	7	(4)	Medium	The neck portion of a vessel with straight neck and deeply incised grooves on the exterior, featureless rim, painted in red ochre, well burnished, slate, coloured grey. (Piklihal pl. 25, 20c; Br. fig 20, T36).
TN	7	(4)	Medium	Rim piece of a bowl-slightly bulging sides, sharpened and internally obliquely cut rim, ochre painted on the rim, of grey with yellowish tinge. (Piklihal pl. 24, 10a, Br. fig. 20 T42a).
TN	7	(4)	Thick	Rim piece of a bowl slightly bulging sides, featureless rim, painted in red ochre with thin incised grooves below the rim on the exterior, well burnished, of yellowish-grey. (Piklihal pl. 24, 7b; Br. fig. 23, T71).
TN	7	(4)	Medium	Rim piece of a bowl-slightly bulging sides, sharpened rim, obliquely cut on the interior, painted on the rim in red ochre, of yellowish grey. (Piklihal pl. 24, 11a).
TN	6	(4)	Medium	Similar to the above, of slate-coloured grey. (Piklihal pl. 24, 11a).
TN	9	(4)	Medium	Rim piece of a large vase with straight flaring mouth, featureless rim, painted in red ochre with thin incised grooves on the exterior, slate grey on the inside and black on the outside. (Piklihal pl. 26, 28d; Br. fig. 22, T50; SGK pl. ix, xviii h).

TN	15	(4)	Medium	Rim piece of a bowl with slightly bulging sides, featureless rim, painted in red ochre, of dark ashy grey. (Piklihal pl. 24, 12a).
Black-on-Red—				
TN	7A	(4)	Thin	Black-on-red sherd with black painted bands almost worn off. The slip is also withering. (Piklihal pl. 35, 10, Br. fig. 18, T2).
TN	7A	(4)	Medium	Sherd of black-on-red ware with two parallel, wide bands below the neck. (Piklihal Pl. 35, 6; Br. fig. 18, T2).
TN	20A	(4)	Thick	Sherd of black-on-red with a thick black painted patch.
TN	20A	(4)	Medium	Sherd of Black-on-red with black bands on the exterior. (Piklihal pl. 35, 17).
TN	20A	(4)	Thick	Sherd of black-on-red with wide black band on the exterior. (Piklihal pl. 35, 10).
TN	20A	(4)	Thick	Sherd of black-on-red with wide black bands. (Br. fig. 18, T18).
TN	20A	(4)	Thick	Sherd of black-on-red with a wide black band intersecting another band.
TN	20A	(4)	Thick	Sherd of black-on-red with a black painted patch.
TN	20A	(3A)	Medium	Sherd of black-on-red with herring-bone pattern with another single band on the edge. (Piklihal pl. 35, 1; Br. fig. 18, T8).
TN	20A	(3A)	Medium	Sherd of black-on-red with a wide black band. (Br. fig. 18,T2).
TN	20A	(3A)	Medium	Sherd of black-on-red with bits of two wide black bands converging.
TN	20A	(3A)	Sherd of black-on-red with a splash of black colour.	
TN	13	(3)	Thin	Small sherd of black-on-red with four thin bands. (Br. fig. 18, T17).
Plain, red ware—				
TN	20A	(3A)	Medium	Sherd of red ware of chalcolithic fabric.
TN	20A	(3A)	Medium	Same as above.
Grey, Pale, Yellow—				
TN	20A	(3A)	Medium	The shoulder piece of a globular-bodied pot, burnished on the outer face with burnishing strokes visible.
TN	20A	(3A)	Medium	Similar to the above.
TN	20A	(3A)	Medium	Neck piece of a globular vessel with concave neck, slightly flaring and featureless rim, well-burnished on the outer surface, as also below the rim on the inner face. (Piklihal, pl. 26, 25a; Br. Fig. 19, T28). All the three sherds above may form a part of one vessel.
TN	20A	(3A)	Thick	Piece of a thick hollow leg of a legged-vessel. The leg part seems to have been made separately and the upper vessel attached to it. (Piklihal pl. 39, 46a).
Grey, Pale burnished—				
TN	20	(3A)	Thick	Large sherd, coarse fabric, thin slip on the outside. The interior has developed a crackled surface due to the coarseness of the fabric. Sooty grey core.

TN	20A	(3A)	Thick	Thick sherd with roughly burnished surface, uneven on both faces showing burnish-grooves coarse fabric and ill-fired.
TN	20A	(3A)	Medium	Sherd with sooty brownish surface uneven and coarse, showing burnish marks.
TN	20A	(3A)	Medium	Similar to the above.
TN	20A	(3A)	Medium	Similar to the above. Sooty on the inside also.
TN	20A	(3A)	Medium	Similar to the above. Sooty on the inside also.
TN	20A	(3A)	Medium	Similar to the above. Sooty on the inside also.
TN	20A	(3A)	Medium	Similar to the above. Sooty on the inside also.
TN	20A	(3A)	Medium	Similar to the above. Sooty on the inside also. (Small).
TN	24A	(3A)	Medium	Sherd of a perforated vessel.
TN	20A	(3A)	Medium	Sherd of a vessel, thin slip on both sides with brownish black surface, gritty and coarse, ill-fired.
TN	20A	(3A)	Thin	Sherd, burnished roughly on both faces, coarse, gritty fabric.
TN	20A	(3A)	Medium	Sherd, slip on the exterior, black, interior brownish with a black core.
TN	20A	(3A)	Medium	Sherd, thin slipped, blackish, ill-fired, coarse, black core.
TN	24A	(3A)	Medium	Sherd of a small high necked pot with slightly blobular body, bluntly carinated, grooves at the neck, straight neck, out-turned and flattened rim with two wide shallow groves on the top of the rim. The rim projects slightly on the interior giving the impression of nail-headed rim. (See Br. fig. 49, A65).

MEGALITHIC

Black-and-Red—

TN	20A	(3A)	Thin	Nine sherds of finely polished, thin, black and brown pieces. Made of well levigated clay, fine fabric, well fired giving almost a metallic fabric. The shapes of vessels represented by the sherds cannot be determined due to their small size but some sherds show blunt carination on one edge. Thereby showing that they have been pieces of bluntly carinated bowl or dish.
TN	16A	(3A)	Thick	Arc shapped leg, the hollow side on the interior, in red ware forming the leg of a legged-bowl or chalice-like big vessel of black and red ware. The leg seems to be hand made where as the upper part seems to be of wheel made and subsequently joined. The leg part is crude and ill-fired, while upper one is made of well levigated clay and well polished. (Piklihal pl. 39, 46a).

MEGALITHIC

Black polished Ware—

TN	20A	(3A)	Thin	Rim piece of small straight-sided bowl, well polished with slightly out-turned rim.
TN	20A	(3A)	Thin	Neck piece of a wide-mouthed vase both the lower portion and the rim is missing, well polished fine fabric and well fired.
TN	20A	(3A)		Do

TN 16A TN 24A	(3A) (3B)		Broken Knobs in black ware. The slip on one of them (32A) has peeled off. The top of the other is broken.

Decorated Pottery

TN 24A	(3A)	Thick	Sherd of an indefinite shape probably of a very thick, wide decorated rim.
TN 24A	(3A)	Thick	The neck portion og a thick jar or storage vessel of crude texture, burnt brick red, smoky brown inside and reddish brown outside with a horizontal band of finger nail depressions below the rim.
TN 24A	(3A)	Thick	Sherd with three deeply incised, roughly parallel strokes on the exterior.

MEGALITHIC

Red Ware

TN 24A	(3B)	Medium	Neck and shoulder of a globular pot with converging neck, externally beaded rim with a shallow groove on the top of the rim. The surface is irregular giving the impression of being shaped on a turn table and dressed with a dabber. (Piklihal, pl. 37, 25e; Br. Fig. 11 C21).
TN 24A	(3A)	Medium	Similar to the above but with a well defined neck and slightly raised ridge below the neck. (Br. Fig. 11, C21b-instead of a ridge, there are weak grooves on the shoulder).
TN 24A	(3A)	Medium	Neckless globular pot with an externally beaded thin rim and two parallel grooves below the rim. (Piklihal, Fig. 11. 25g-but the grooves are absent).
TN 24A	(3A)	Medium	Globular pot with a concave neck, everted and beaded rim with a shallow wide groove on the top of the rim. Wheel made (Br. Fig. 28, T 186).
TN 24A	(3A)	Medium	Globular pot with slight neck, flattened and externally thickened rim. (Piklihal, pl. 37, 34).
TN 24A	(3A)	Medium	Globular pot with short slightly curving neck, externally beaded 25th ; rim. (Piklihal, pl. 37, Br. Fig. 30, T190).
TN 24A	(3A)	Medium	Similar to the above.
TN 24A	(3A)	Medium	Globular pot with a short straight neck, everted and flattened rim with thin grooves both on the top and the interior of the rim. (piklihal pl. 37, 23 ; Br. Fig. 11, C24b).
TN 16	(3A)	Medium	Globular pot, bluntly carinated at the shoulder, short straight neck, everted and externally flattened rim with a slight groove on the interior of the rim.
TN 24A	(3A)	Medium	Globular pot with short straight neck, externally folded rim, flattened and thinly grooved on the rim. (Br. Fig. 26, T120).
TN 24A	(3A)	Thick	Globular pot with short straight neck, thinly grooved on the shoulder, externally folded rim with three shallow grooves on the rim. (Br. Fig. 26, T120).

TN	24A	(3A)	Medium	Similar to the above but the groove is not so pronounced. There is another deep groove on the interior of the rim. (Br. fig. 12, C28a is very similar).
TN	24A	(3A)	Medium	Globular pot with short neck, externally folded rim with a deep groove on the rim. The edge of the rim being sharply cut. Thin parallel grooves on the shoulder. (Br. fig. 26, T120).
TN	24A	(3A)	Medium	Same as above.
TN	24A	(3A)	Medium	Similar to the above but there is a pronounced ridge on the interior of the neck. (Br. fig. 25, T 119).
TN	24A	(3A)	Medium	Similar to the above but the top of rim flattened.
TN	24A	(3A)	Medium	Similar to the above.
TN	24A	(3A)	Medium	Similar to the obove.
TN	24A	(3A)	Medium	Similar to the above.
TN	24A	(3A)	Medium	Similar to the above.
TN	24A	(3A)	Medium	Similar to the above.
TN	24A	(3A)	Thick	Short necked globular pot, thick and externally beaded and flattened rim with two broad and shallow grooves on the rim. (Br. fig. 12, C29).
TN	24A	(3A)	Medium	Short necked globular pot with externally folded and under-cut rim with three deep grooves on the exterior of the rim and shallow groove on the interior of the rim. (Br. fig. 25, T113).
TN	24A	(3A)	Medium	Similar to the above but the groove on the interior of the rim is deep and well pronounced.
TN	24A	(3A)	Medium	Short necked globular pot with externally folded and slightly under-cut rim having one deep and two slight grooves on the exterior, one thin groove on the interior of the neck with a well pronounced ridge on the neck.
TN	24A	(3A)	Thick	Similar to the above. The groove on the interior of the rim is very pronounced whereas those on the exterior are not so clear, only one thick groove is visible. Thin parallel grooves are visible below the ridge on the neck.
TN	16A	(3B)	Thick	Neckless pot with featureless rim flattened and grooved below the rim. One of the grooves being wide and another is thin.
TN	16A	(3A)	Thick	Similar to the above but internally thickened rim, the grooves being smudged on the exterior.
TN	16A	(3A)	Thick	Similar to the above.
TN	16A	(3A)	Thick	Neckless globular pot with thickened and flattened rim. (Piklihal pl. 39, 40b).
TN	16A	(3A)	Thick	Similar to the above with thickened rim on both sides giving the appearance of nailheaded rim. (Piklihal pl. 39, 40b).
TN	16A	(3A)	Thick	Neckless globular pot with thickened rim with deep grooves on the exterior of the neck giving the appearance of slightly nail-headed rim.
TN	24A	(3A)	Thick	Similar to the above but deep and pronounced grooves on the exterior with flattened nail-headed rim.
TN	24A	(3A)	Medium	The rim piece of a globular pot with externally beaded rim, the deep groove on the interior and a thick ridge on the exterior, rim pierced with incised strokes giving the appearance of horizontal bands. (Piklihal pl. 39, 39).

TN	24A	(3A)		Large dish-*cum*-lid with carinated waist, straight sides slightly thickened on the exterior and featureless rim. (Piklihal pl. 36, 15b ; Br. fig. 28, T163).
TN	24A	(3A)	Thin	Small vase with globular body, straight neck and slightly thickned rim. (Br. fig. 12, C30).
TN	20A	(3A)	Thin	Piece of a lipped-bowl.
TN	20A	(3A)	Medium	Globular pot or vase with short flaring neck, and featureless rim.
TN	20A	(3A)	Medium	Similar to the above.
TN	20A	(3A)	Thin	Rim piece of a deep bowl with straight sides and featureless rim.
TN	24A	(3A)		Piece of a pot with a spout. (Br. fig. 23, T76).
TN	24A	(3B)		Piece of a handle.

POTTERY FROM LAYER (3) T. NARASIPUR

(A) Black-and-red ware

TN	20A	(3)	Thin	Deep bowl, with straight sides, flattened bottom, and featureless rim. It is finely polished, thickly-slipped and well fired. The clay is finely levigated. (Piklihal pl. 36, 7a ; Br. fig. 24, T80).
TN	16	(3)	Thin	Similar to the above, bottom is somewhat rounded.
TN	24	(3)	Thin	Small deep bowl with straight sides, rounded bottom and rounded rim. Finely polished, slipped and well fired. (Maski fig. 22, 6).
TN	16	(3)	Thin	Similar to the above but has a slight ridge on the interior below the rim. (Br. fig. 24, T.83).
TN	24	(3)	Thin	Similar to the above but there is slight thickening on the interior of the rim as though it is folded.
TN	3	(3)	Medium	Small shallow bowl with slightly bulging sides, somewhat rounded bottom, and featureless rim. There is very crude slip, no polish, firing is low and seems to have been shaped on a turn-table or slow wheel (Piklihal Pl. 36, 5a).
TN	20A	(3)	Thin	Deep bowl with bulging sides, flattened bottom and featureless rim. Highly polished and slipped, well fired and the clay is well-levigated. (Br. fig. 24, T81 ; Maski fig. 22, 4).
TN	6	(3)	Thin	Similar to the above.
TN	3	(3)	Thin	Small deep bowl with bulging sides, flattened bottom and featureless rim. Polished and slipped moderately, well fired with well levigated clay. It is to be noted that there are only traces of brown colour but it is almost fully black in colour.
TN	20A	(3)	hin	Deep bowl with bulging sides, rounded bottom, slightly out-turned ? (Concave) neck and features rim. Highly polished and slipped, well fired with well-levigated clay. (Br. fig. 25, T105).

TN	3	(3)	Medium	Deep bowl with slightly bulging sides, rounded bottom, internally thickened and sharpended rim with a thick groove externally below the rim. Highly polished, slipped, well-fired. Though the clay is well levigated, occasional quartz particles are present.
TN	3	(3)	Thin	Bowl with slightly bulging sides, rounded bottom, internally thickened rim and a broad, shallow, groove below the neck externally. Finely polished and slipped, well fired. Sand particles are present in the levigated clay. (Br. Fig. 24, T84).
TN	13	(3)	Thin	Bowl with bulging sides, slightly externally folded rim with slightly raised lines both on the interior and exterior at the waist. Polished and slipped, well fired and having a very lightly crackled surface.
TN	3	(3)	Thin	Shallow bowl with rounded bottom, carinated with a prominent ridge at the waist and featureless rim. Well polished, slipped, well fired, with well-levigated clay.
TN	3	(3)	Thin	Similar to the above.
TN	3	(3)	Thin	Similar to the above with two shallow, broad grooves at the waist without the carination.
TN	3	(3)	Thin	Similar to the above.
TN	7	(3)	Thin	Similar to the above but instead of two shallow broad grooves, there is a prominent ridge at the waist.
TN	24	(3)	Thin	
TN	24	(3)	Thin	Deep bowl, rounded bottom, straight sides, a shallow broad groove and a prominent ridge at the shoulder and featureless rim. Highly polished, slipped, well fired with finely levigated clay.
TN	15	(3)	Thin	Deep bowl with bulging sides and a shallow groove and a ridge at the waist and sharpened rim. Highly polished and slipped, well fired with well levigated clay.
TN	7	(3)	Thin	Similar to the above but is carinated and exhibits a prominent ridge at the waist without the groove.
TN	23	(3)	Thin	Small deep bowl, rounded at the bottom, bluntly carinated at the waist, bulging sides, grooved at the neck, slightly flaring mouth and featureless rim. Slightly polished and slipped, moderately fired and coarse in fabric.
TN	3	(3)	Thin	Small bowl with bulging sides, straight neck and slightly thickened rim. Slightly slipped without polish, moderately fired and finely levigated.
TN	20A	(3)	Thick	Large shallow bowl with bulging sides internally slightly thickened rim with three parallel shallow grooves below the rim externally. It is highly polished and slipped, moderately fired with well-levigated clay.
TN	20A	(3)	Medium	Large deep bowl with sloping sides and rounded bottom, clubbed and internally thickened rim with two grooves and a ridge below rim (with ripple marking) externally well polished and slipped, moderately fired and well levigated.

TN	20A	(3)	Thick	Large deep bowl with sloping sides, flattened and internally slightly beaded rim with two deep grooves below the rim externally. Well-polished and slipped, moderately fired and well levigated.
TN	10	(3)	Medium	Large deep bowl with sloping sides, internally beaded rim with a prominent groove below the rim externally. Polished and slipped, well fired and well levigated.
TN	4	(3)	Medium	Large tulip-shaped basin with sagger base, deeply concave neck and externally beaded rim. Well polished and slipped, well fired and well levigated. (Br. fig. 24, T92 ; Maski, fig. 22, T, 20).
TN	3	(3)	Medium	Platter with upturned and slightly sharpened rim. Well polished and slipped, moderately fired with sand particles in the clay.
TN	20A	(3)	Medium	Large platter with upturned and rounded rim. Well polished, slipped, well fired and levigated.
TN	3	(3)	Thin	Shallow dish with rounded bottom, upturned shoulder and slightly thickened rim. Well-polished, slipped, fired and levigated. (Piklihal pl. 36, 4 ; Br. Fig. 24, T, 89 ; Maski, Fig. 22, 9a).
TN	6	(3)	Thin	Shallow dish with slightly sagging base, upturned shoulder and rounded rim. Moderately polished and slipped, well fired and levigated. (Maski fig. 22, 9d).
TN	19	(3)	Thin	Similar to the above, but smaller and the rim is internally beaded.
TN	22	(3)	Thin	Similar to the above.
TN	22	(3)	Thin	Similar to the above, but the carination at the waist is prominent. (Br. fig. 24, T88).
TN	3	(3)	Thin	Similar to the above.
TN	6	(3)	Medium	Large shallow dish with rounded base, upturned shoulder with a groove at the shoulder internally and featureless rim. Well polished. slipped, well fired and levigated. (Maski fig. 22, 9b).
TN	6	(3)	Thin	Similar to the above.
TN	24	(3)	Medium	Large dish with rounded base, upturned sides, bluntly carinated at the waist and internally beaded rim. Highly polished, slipped, well fired and finely levigated. (Br. fig. 24, T89).
TN	22	(3)	Medium	Similar to the above.
TN	16	(3)	Medium	Similar to the above.
TN	15	(3)	Medium	Similar to the above, but the rim is, besides being internally beaded, sharpened.
TN	15	(3)	Medium	Similar to the above.
TN	1	(3)	Thin	Similar to the above but there are two thin grooves on the sides externally.
TN	6	(3)	Medium	Similar to the above, but the rim is internally beaded, bluntly carinated at the waist with a deep ridge and two grooves below it at the waist. Well polished, slipped well fired and levigated.
TN	11	(3)		Pointed leg of a vessel moderately fired. No polish. Muddy brown in colour but the bottom portion of the vessel above is black.

TN	17	(3)		Different pieces of legs of vessels, all in red hand-modelled ware, but generally such legs are attached or luted to vessels in Black-and-red ware or some times to the Brown or red wares of the neolithic. In this case, all the three pieces are roughly rectangular in section with a broad shallow depression on the inner side One of them has a further horinotal thin band from which the legs proceed downwards.
TN	13	(3)		
TN	20A	(3)		
TN	17	(3)	Thick	All these are bottom portions of legged-vessels in Black-and-red ware with legs being normally hand-modelled in red colour apparently like those: Nos. 44-46, above. The leg portions have been entirely or partly broken off in these instances. The upper vessels are generally made on wheel, well polished, thick-to-medium in section and moderate-to-well fired and made of clay mixed with sand and quartz and hence are coarse-to-medium in fabric.
TN	11	(3)	Medium	
TN	1	(3)	Thick	
TN	11	(3)	Thick	
TN	3	(3)	Thick	The first group Nos. 47 to 50, have ring-like legs separated into two by a thick central partition at the base. The second group Nos. 51-53, has probably three legs each which project downwards from the base of the vessel No. 54, seems to have a ring-pedastalled base while in No. 55, the shape of the pedestal is not determinable.
TN	11	(3)	Medium	
TN	20A	(3)	Medium	

(B) BLACK-POLISHED WARE

TN	7	(3)	Medium	Large wide-mouthed vase with globular body, everted and externally beaded rim, with two thin and one thick grooves on the shoulder. Well polished and slipped, well fired and well levigated.
TN	7	(3)	Medium	Large wide- mouthed vase, blutly carinated at the shoulder, rounded bottom and slightly thickened rim. The piece exhibits one broken part of a lip, pinched at the rim. Well polished, slipped, well fired and levigated.
TN	7	(3)	Medium	Wide mouthed globular vase, externally highly bent neck, flattened and thickened rim having two grooves at the shoulder. Well polished and slipped, well fired and well levigated.
TN	16	(3)	Medium	Similar to the above, but there are three deep grooves on the top of the externally bent neck. There is no polish or good slip, moderately fired and of coarse fabric.
TN	7	(3)	Medium	Platter with the edge or rim turned upwards, the rim beaded and sharpened. Highly polished, slipped, well fired and levigated.
TN	22	(3)	Medium	Small flat dish with edges upturned, featureless rim. Highly polished, slipped, well fired and levigated. (Maski fig. 22, 9b).
TN	3	(3)	Medium	Pieces of lid-*cum*-dish or knobbed lids with the edges slightly raised and bent downwards and rims sharpened. All highly polished, slipped well fired well-levigated.
TN	5	(3)	Medium	
TN	22	(3)	Thin	
TN	23	(3)	Thin	
TN		(3)	Thin	The Central part of the lid with the knob and the edges broken. It is highly polished and slipped, well fired and levigated. (See Br. fig. 25, T 101; Porkalam Figs. 2, 8 and 9, conical and pointed leg, part of a vessel being hollow inside. Highly polished and fired.

TN	22	(3)	..	Conical and pointed leg part of a vessel being hollow inside. Highly polished and fired.
TN	10	(3)	..	
TN	22	(3)	..	Knobs of lids with short solid stems and rounded-domical tops. Generally they are well shaped, polished, slipped, well fired and well levigated.
TN	22	(3)	..	
TN	22	(3)	..	
TN	11	(3)	..	
TN	2	(3)	..	Knob with a long solid stem, with a cup like top in the centre of which there is a conical projection. Well polished, slipped, highly fired and well levigated.
TN	22	(3)	Thin	Bottom portion with a pointed, or rather round-pellet-like base. Well polished, slipped well-fired and levigated.
TN	22	(3)		

(C) Red-polished ware

TN	22	(3)	Thin	Deep straight sided vase or bowl with internally rounded rim and a thick band with incised finger nail impressions between two shallow and wide grooves below the rim externally. Slipped and well polished in brownish-red colour. Well fired and well levigated.
TN	2	(3)	Thick	Globular vessel with externally beaded rim and two bands of finger-nail impression separated by two shallow grooves (herrring-bone design). Finely polished red only externally. Well fired and well levigated. (Chandravalli fig 49, A69; also see Piklihal. Pl. 37 25k).
TN	22	(3)	Medium	Large high-necked globular vase with long straight neck, internally thickened rim with a wide band impressed with finger nails between two shallow grooves. Finely polished and slipped in a brownish red colour on the outside and the neck portion of the interior. Well fired and well levigated. (Ch. fig. 48, A50. The finger design is absent).
TN	22	(3)	Medium	Similar to the above, but the neck is longer and there are two bands with finger nail-impressions. (Ch. fig. 48, A50-the finger-tip design is absent).
TN	22	(3)	Medium	Similar to the above, but the neck somewhat shorter, rim is internally thickened well polished dark brown colour. (Ch. fig. 48, A50—the finger-tip design is absent).
TN	22	(3)	Medium	Large globular pot with deeply everted rim, having two bands of finger nail-impressions between shallow grooves. Moderately polished and slipped brownish red on the exterior and the neck or the inside, well-fired and moderately levigated. (Piklihal pl. 37, 25b-nail impressions not seen).
TN	3	(3)	Thin	Narrow mouthed-globular pot with a short neck, externally folded rim with a deep groove on the interior of the neck, well polished with thin slip in red well fired and well levigated. (Ch. fig. 49, A63; Br. fig. 30, T195; Maski, fig. 24, 46).
TN	7	(3)	Medium	Small mouthed-globular pot with a short neck, thickened rim, with two broad shallow grooves on the interior of the rim. Well polished and slipped in chocolate brown, moderate firing, finely levigated. (Br. fig. 30, T193; Piklihal pl. 37, 30b).

TN	7	(3)	Medium	Similar to the above.
TN	15	(3)	Thin	Similar to the above, but there is a single groove on the interior of the neck. Well polished and slipped in dark brown, well fired and levigated. (Piklihal pl. 37 ; 30b ; Br. fig. 30, T198).
TN	16	(3)	Thin	Similar to the above, but the neck is longer and rim thinner.
TN	6	(3)	Thin	Similar to the above, but the neck is long, the deep groove on the interior of the rim is absent and a number of striation marks are visible. (Ch. fig. 44, M17).
TN	3	(3)	Thin	Large long-necked globular pot with everted, thickened and under-cut rim with one broad shallow depression on the top of the rim and two thin grooves on the interior of the neck. Polished and slipped in dark brown, moderately fired and well levigated. (Br. fig. 30, T193 ; Ch. fig. 44, M15).
TN	3	(3)	Thick	Large globular jar with a short and a recurved rim with a prominent groove on the interior. Highly polished and slipped on the exterior in deep red, well fired and levigated. (Br. fig. 30, T199).
TN	6	(3)	Thin	Narrow mouthed-short necked globular pot with slightly flaring neck, recurved rim with a very prominent groove on the interior and three irregular grooves on the recurved top of the rim. Highly polished and slipped in smoky brown, well fired and levigated. (See Piklihal pl. 37, 22).
TN	11	(3)	Medium	Narrow mouthed, long-necked globular pot with prominent alternate thick ridges and deep grooves three each on the exterior of the neck and a broad shallow groove on the interior, giving the appearance of a recurved rim. Highly polished and slipped in smoky brown, highly fired and well levigated.
TN	3	(3)	Thin	High necked jar with slighly flaring neck and slightly thickened rim. Well polished and slipped in deep brown colour, well fired and levigated.
TN	24	(3)	Thin	Similar to the above, but the rim is internally folded.
TN	22	(3)	Thin	Similar to the above, but the rim is externally folded.
TN	3	(3)	Thin	Long-necked vase with flaring mouth and internally folded rim polished and slipped in smoky brown, well fired and levigated. (See Ch. fig. 49, A53).
TN	22	(3)		The knob of a lid with a short stem and domical top. Highly polished in smoky brown and well fired and levigated. The stem is hollow inside.
TN	13	(3)	Thick	Large and very thick trough with straight sides, featureless-flattened rim with a thick raised band impressed with finger tips resembling rope-design below the rim externally. Roughly dressed and moderately fired with coarse fabric.
TN	13	(3)	Medium	Lid-*cum*-bowl with a low-domical top and internally bent rim with broad groove on the side. Well polished and slipped, well fired, reddish brown at the edges and black at the centre and well levigated. (Piklihal, pl. 36, 15a. Br. Fig. 28, T165).

TN	23	(3)	Thick	Shallow squattish vase or bowl with deep and heavily flaring sides, a round cup-like depression at the bottom and featureless rim. Polished and well slipped, well fired and levigated.
TN	9	(3)	Thick	Similar to the above.
TN	17	(3)	Thick	The bottom cup-like depression of the above. Ill-fired and crude in fabric.
TN	20A	(3)	Thick	Small toy-cup, shallow, with clubbed rim. Ill-fired and coarse in fabric.

(D) The ill-fired redware

Large quantities of this variety of redware which starts occurring from the megalithic period as the ordinary ceramics meant for the use of lesser purposes—kitchen-use, storage and such other utilitarian purposes and continue to serve that purpose even after metal utensils came into general and wide spread usage occurs in the periodIII—Megalithic, and period IV—the early historical times from the excavation at T. Narasipur. Since the main interest in the excavations was devoted to the study of the Neolithic-chalcolithic problem in the region and their interrelationship with the succeeding megalithic culture in the region, only characteristic varieties of the ceramic industries of the megalithic culture have been studied in detail and only important characteristics of the others—particularly this variety-have been noted in passing. This variety of pottery is manufactured out of a coarse kind of clay which is not well levigated into a smooth paste, large quantities of sand particles being present. Generally the vessels do not have a slip or polish : only an attempt at surface dressing or smoothening is noticed. Again, they are not properly fired and are fragile. Only a few specimens which are generally thick are better fired and are sturdy. Further the shapes are also confined to a few utilitarian types like narrow or wide mouthed pitchers or storage jars, cooking vessels, lids-*cum*-bowls, large shallow basins with rounded bottoms, bowls with sloping side with truncated or rarely pointed bottoms and featureless or internally thickened or beaded rims, etc. A few of these small-sized globular vessels exhibit utilitarian device like short spouts or perforations at the bottom. There are also a few miniature globular bodied-vases with very thick sections, half-burnt, probably used as oil vessels and storing other liquids temporarily or toy-bowls some of which were used either as crucibles or terracotta lamps—their use cannot be specifically determined since unfortunately only broken examples have been found. In the case of the pichers or storage vessels a variety of rim types are seen. They include simple rounded or beaded rims above short or long necks of a concave type, everted, flanged, under cut or clubbed varieties. Further, the ornamentation on the rims consists of one, two or more horizontal and thin or deep grooves and in a few instances also rope designs or ridges and finger-tip or nail impressions. Apart from these decorations on the rims, decorations on the shoulders are also noticed but they are also of the same general technique.

One point about the types in this ware deserves special mention. The lipped and channel-spouted bowls were noted to occur in considerable numbers. This device, ranges from a simple pinching at the rim of the bowl to well developed lips, 2 to 3 inches in length, and similar breadth, either almost flat or semi-circular-channel-like depression. In one or two instances these lips are elongated upto four and five inches and may thus be compared to the channel-spouted vessels from the Chalcolithic sites of Central India, though in the present case, they are shallower compared to the specimens from the northern neighbourhood. It was already observed while studying the pottery from the Neolithic-chalcolithic horizons that this site and the neighbouring. Hemmige yield sufficient evidence to underline the fact that these so called channel-spout device need not be derived from outside the borders of the sub-continent, as suggested by some Indian archaeologists, but might have locally developed as examples in different stages of "pinching-lips" and channel spouts and have been collected in large numbers.

POTTERY FROM LAYER (2) T. NARASIPUR

(A) Black-and-red ware.

TN	3	(2)	Thin	Small deep bowl with almost straight sides, rounded bottom and featureless rim. Highly polished and slipped, well fired and levigated (Piklihal Pl. 36, 7a; Br. Fig. 20, T36a; Maski, fig 22, 6).
TN	6	(2)	Thin	Small deep bowl, with bulging sides, rounded bottom and internally thickened and sharpened rim, moderately polished and slipped, well fired and levigated. (Piklihal, pl. 36, 6b, Br. fig. 22, T62).
TN	6	(2)	Thin	Bowl with slightly incurved shoulder, sloping lower part, rounded base, bluntly carinated at the waist and sharpened rim. Highly polished and slipped, highly fired and well levigated.
TN	10	(2)	Thin	Pieces of a conical or tulip-shaped bowl, bluntly carinated at the shoulder and featureless rim. Well polished and slipped, moderately fired and levigated. (See Sanur fig. 3, 24 and fig. 4, 43).
TN	3	(2)	Thin	Bottom portion of a bowl(?) with rounded bottom. It is unpolished, very crude slip or mere dressing is applied, moderately fired and levigated.
TN	3	(2)	Thin	Piece of a small platter with upturned edges, internally folded rim and flattened base. Unpolished, crudely slipped, moderately fired and levigated.
TN	3	(2)	Thin	Similar to the above.
TN	3	(2)	Thin	Large shallow, dish, with slightly bulging sides, bluntly carinated at the waist and featureless rim. Highly polished and slipped, well fired and levigated. (Two more pieces of the same are seen). (Piklihal pl. 36, 4; Maski fig. 22, 9a).
TN	6	(2)	Thin	Large shallow, dish, with slightly flaring sides, bluntly carinated at the waist, rounded bottom and internally thickened rim. Well polished, well-fired and levigated. (Br. fig. 24, T88).
TN	3	(2)	Thin	Similar to the above, but a slight concave depression on the sides.
TN	22	(2)	Thin	Shallow dish with slightly flaring sides, bluntly carinated at the waist, flattened bottom, and internally folded rim. Well polished and slipped, highly fired and well levigated. (Br. fig 24, T. 89).
TN	18	(2)	Thin	Similar to the above, but the rim is internally beaded.
TN	6	(2)	Thin	Similar to the above but with a prominent ridge below the rim externally and shorter sides.
TN	6	(2)	Thin	Similar to the above, but the sides are longer.
TN	3	(2)	Thin	Similar to the above, but without carination at the waist and a rounded bottom.
TN	3	(2)	Thin	Similar to the above, but there are three grooves and two ridges below the rim externally.

(B) Black, polished ware.

TN	8	(2)	Thin	Piece of a small vase with protruding belly, straight neck, featureless rim, with four thin and one more prominent groove below the neck externally. Polished, well fired and finely levigated.
TN	8	(2)	Medium	Piece of a vase with protruding belly, short, neck, out-turned and slightly-beaded rim, with a crude lip. Polished, slipped, well fired and levigated.
TN	8	(2)	Thin	Piece of a vase with protruding belly everted and beaded rim, polished, slipped, well fired and levigated. (Piklihal Pl. 37, 25K).
TN	19	(2)	Medium	Piece of a large vase, wide, fully exerted, slightly convex and prominent rim, and three narrow grooves below the rim externally. Slipped well, fired and well levigated. (Maski fig 34. 43; ch. fig 48, A47).
TN	22	(2)	Medium	Rim piece of a vessel fully everted with a concave depression on the lower side of the rim and a groove on the upper side. A prominent zig-zag, angular ridge is applied on the upper side which is incised with nail impressions. Slipped, well fired and levigated.
TN	4	(2)	Thin	Piece of a large shallow dish with straight sides, slightly sagging base, and featureless rim. Well polished and slipped, well fired and levigated. (Maski fig 22, 9).
TN	8	(2)	Thin	Piece of a lid with incurved and sharpened rim, resulting in a raised carination at the waist. Well polished and slpiped, well fired and levigated. (See Br. fig 25, T101 but they are not funnel-shapped).
TN	9	(2)	Thin	Similar to the above.
TN	2	(2)		Knobs with long convex stems, pointed peak-like apex with two prominent grooves on the base of the peak.
TN	7A	(2)		Well polished, slipped, well fired and levigated.
TN	1	(2)		While the first two nos. (9) and (10) have solid stems No. 11 has a hollow stem.
TN	13	(2)		Ringed-knobs or ring-handles of the lids. One
TN	7A	(2)		specimen, No. 12 retains the complete ring
TN	6	(2)		while the other, No. 13 retains only the lower part of the ring and part of the stem which is thicker than the former, *i.e.*, No. 12, the third, No. 14 is only a small piece. On the outer face of the ring in No. 12, there are two shallow grooves flanking a ridge while No. 13 seems to have a plain, rounded surface. All of them are well polished, slipped, well fired and levigated, (for these ringed-handles see Br. Fig. 13, P2; Sanur Fig. 6, 71).

(C) Crude, Black-slipped Ware.

TN	18	(2)	Medium	Small vase with a prominently bulging body, bluntly carinated shoulder, steeply receding and rounded bottom, concave neck and everted rim. There are two thick grooves at the carinated shoulder. Slipped, moderately fired and levigated.
TN	17	(2)	Thin	Similar to the above, but slightly bigger.

(D) *Russet-coated painted ware with rouletted decoration.*

TN	20A	(2)	Thin	Black-and-red ware bowl of small size with a flattish bottom and straight sides. Well polished, slipped, highly fired and well levigated. The lower part and the bottom is covered with russet-coating and traces of painting are visible. Since the surface is crackled and the slip and the russet-coating has mostly peeled off, the designs of the painting are not readily recognisible. On the inner side of the base is seen a crude impression of rouletting thereby testifying that the local potters were acquainted with the art of rouletting and had imitated it on their own fabrics, further decorating it with russet-coating. Hence this vessel might represent a ceremonial or highly luxurious utensil.

Another sherd of a similar vessel with rouletted design and russet-coating on Black-and-red ware has been collected from Pit III in T.N. 3 which is sealed by the humus, *i.e.*, (1) and hence belongs to the same age.

TN	17	(2)	Thin	Sherds with russet-coated surface but no Kaolin painting is seen. They are all well polished, slipped, highly fired and well levigated.

(E) *Red Polished ware.*

TN	21	(2)	Thin	Rim portion of a large globular jar without neck, externally thickened rim on the outer face of which occur nail incisions on both sides of a central groove resembling the herring-bone pattern or the bipinnate-leaf pattern, above which occurs a plain deep groove. Polished and slipped, well fired with a coarse core.
TN	1	(2)	Medium	Upper portion of a large gloubular jar without neck, internally folded rim with two sets of two grooves each below the rim and on the shoulder.
TN	6	(2)	Medium	Similar to the above but with a thickened rim on the outerside of which occur two bands with nail incisions separated by deep grooves. Highly polished in deep-reddish brown colour. (Piklihal pl. 37, 20a).
TN	3	(2)	Medium	Similar to the above, but the nail incisions are better executed and the vessel seems to be smaller and thinner.
TN	3	(2)	Medium	Neck portion of a large globular jar with a long straight neck, internally beaded rim, a deep groove on the external side below which is a thick band containing incised, angular, zig-zag, design. Highly polished, slipped, well fired *and* levigated.
TN	3	(2)	Thin	Neck portion of a globular vessel with flaring mouth, long neck, externally thickened rim with two grooves below it and two further ridges on the lower part or the neck. Well polished, slipped, well fired and levigated. (Three more sherds of the same pot). Chandravalli fig. 49, A64).
TN	3	(2)	Thin	Shoulder portion of a globular pot with short straight, internally thickened rim and a low angular ridge on the outer rim. Moderately polished, well fired and levigated. (Br. Fig. 30. fig 30. T193).

TN	6	(2)	Medium	Similar to the above but the neck slightly longer and the rim is externally thickened.
TN	6	(2)	Thin	Similar to the above but has a clubbed rim and grooves on the shoulder.
TN	6	(2)	Thin	Narrow-mouthed globular vessel, without short straight neck, double incurved-featureless rim with one deep and two shallow grooves on the top of the rim. Well polished and slipped in smoky brown colour, well fired and levigated. (Br. Fig. 25, T.119).

(F) *Ill-fired red wares*

As already stated while dealing with similar ware from (2), only a passing survey of this industry will be given hereunder. This ware continues to exhibit almost similar shapes, fabrics and techniques employed in the production. But it is noted that the bowls are completely absent while the storage vessels, pitchers and even cooking vessels are very few or almost absent: this may be eiher accident or a result of the increased use of metal utensils for eating and storing purposes. But similar levels elsewhere have yielded them in considerable numbers. The most frequent types of pottery vessels from this layer in this fabric include large and medium sized blobular vessels with comparatively wide mouths, some neckless and short necked, externally beaded, everted, thickened, rims with natil impressions, rope designs, circle-and dot incised designs or incised herring-bone patterns, small globular-bodied vessels with simple everted rims, a variety of lid-*cum*-dishes, shallow platters or dishes, perforated vessels, besides miniature dish-like toy-vessels. Majority of these vessels are thick in section. They are made of coarse clay with sand particles; are ill-fired to brick-red stage and are finished with mere smoothening or dressing of the surface. Pieces of channel-spouted vessels have also been found in this fabric.

(H) *Other Wares*.

A few sherds of grey burnished ware, black, smoky grey or pale brown slipped, of neolithic fabric have been found from this layer also. Of the recognisable shapes in this fabric are the channel-spouted or lipped vessels and high-necked globular vessels. These neolithic sherds are mostly survivals or come up due to disturbance on the site in later times.

Ceramic Industries of layer 1.

This layer consists of the humus in the site. Since a large part of the ancient site is under active use in the recent times, either under cultivation or quarrying for soil the layer is completely disturbed and much that is of recent origin or of ancient times is inextricably mixed up. Therefore none of the antiquities of this layer has any stratigraphic value. But it may be noted in passing that Black-and-red, black-polished, red-polished and ill-fired red wares have been found here. It is to be specically noted that the black polished ware found here is of very high quality. The sherds have thin section, very highly polished, almost glaze-like, highly fired giving a metallic sound.

Incised Decoration on the head rest

One piece of the head-rest in dark ashy-grey ware has also been found. (All these fabrics and types can be picked up in plenty from the surface of the site).

2. Graffiti

Much has been written on this topic and widely varying explanations regarding their significance have been put forth. If Yazdani considered them as representing written characters similar to the Egyptian hieratic script[1]. Col. Hunt would consider them as symbols related to the megalithic burials,[2] while others would think that they represent either potter's marks or owner's marks. But none of these explanations has commended itself for general acceptance and the meaning of the Graffiti still defies a satisfactory solution. They appear to be essentially post-firing scratches on all classes of pottery associated with the megalithic folk: scratched on vessels irrespective of their shape, function, association with burials or otherwise. A site like T. Narasipur or Sengamedu without any megalithic burials but with only the habitation deposits have yielded them. In fact T. Narasipur has yielded as many as 186 marks all on pottery used for domestic purposes. Hence it may be inferred that the marks may not have any special funerary significance as Hunt remarks. Nor would they fall under any regional or typological classification, since identical marks may be found on pots from the same site, at times on the same pots, but also from sites far removed from one another. Some marks from T. Narasipur have their parallels from sites like Sanur near Madras, Brahmagiri in Chitaldurg District and Maski near Raichur etc. Further B. B. Lal has pointed out that a number of these marks from the megaliths have resemblance to the script found on the Harappan seals. But the majority do not have any resemblance to those published from other sites. Since any systematic classification of these marks are not possible all the marks are reproduced here-under without any attempt at classification.

3. Stone Implements

(a) *Flakes*:

Some flakes and flake-implements have been collected from the surface of the site and its neighbourhood. The excavations proper have yielded a single flake from a pit of the neolithic phase. It is made of vein quartz, and because of the coarseness of the material the working is hardly recognisable. The specimens, except for No. 7 and possibly No. 6, are little worked and do not exhibit any evidence of retouch or use marks. No. 7 seems to have been retouched on one of the lateral sides and used as a side scraper. The dominant raw material used is a coarse-grained brown jasper with a lesser quantity of quartzite and rarely chert. The flakes are produced by Levollois or pseudo—Levollois technique, *i.e.*, there is evidence of the platform being prepared from which the flakes were removed by a single blow and the under surface retains the flake scar and the bulb of percussion.

These flakes appear to belong to the tradition of upper palaeolithic flake tools which continued in use till the Neolithic Age. But since one of them has been found in a pit of the neolithic phase, it may

---

1. G. Yazdani, Annual reports of the Archaeological Department of the Nizam's Dominions for 1915-16, P. 9-10 and 1916-17 pp. 5-8; Jour-Hyd. Arch. Soc. 1917 pp. 56-79.

2. E. H. Hunt Jour. Roy. Anthrop. Soc. LIV (1924).

be inferred that they continued to be used even during this period. It has been pointed out elsewhere[1], and further endorsed by Dr. Subba Rao[2] that these flakes are post-palaeolithic and mainly pre-neolithic and may be considered as " a 'Macrofacies' of the microlithic blades " and are comparable to Brahmagiri Pre-1[3] and Sanganakallu phase-1[4].

Fluted Cores :

Four pieces of fluted cores have been found from the site, all from the overlap phase. They are of black chert. They exhibit clear evidence of the preparation of the platform and removal of narrow ribbon flakes. But no blades have been found from the excavations themselves.

The nearby site of Hemmige has also yielded similar fluted cores in addition to the ribbon blades, thus attesting to the presence of the chalcolithic blade industry.

1. Fluted core of greenish chert made on flat nodule. Both the surfaces retain partly the patinated cortex. The platform is prepared by removing four flakes and form the platform are removed about six ribbon flakes the negative scares of which are visible.

2. Small core of black chert roughly rectangular in cross-section at the platform. The lower edge is broken from both the sides resulting in a sharp edge. The platform shows evidence of preparation and three to four negative scars of ribben flakes are seen on one of the sides.

3. Small core of black chert. While the lower surface exhibits short horizontal flake scars, the upper side five or six flake scars of ribbon flakes. The platform is completely broken.

4. A thick lump of black chert, irregular in shape with five or six flat surfaces. There is one doubtful flake scar, otherwise there is no evidence of working.

Stray stone tools :

1. A large irregular flake of coarse pinkish jasper (?) retaining a part of the cortex at one edge. One side exhibits complete flake scar, the bulb of percussion and shatter marks while the other surface reveals one large and two smaller flake scars, one of which shows a negative bulb of percussion and has a shattered surface.

2. A large triangular flake of coarse brown jasper. One side exhibiting a complete flake scar and the bulb of percussion while the surface has two small flake scares and the rest of it shows the cortex. The edge on the other side is sharp.

3. An irregular flake, of coarse brown jasper one side exhibiting a flake scar all over while the other retains on two edges the cortex and the rest has small flake scars.

---

1. M. Seshadri : The Stone using cultures of Pre and Protohistoric cultures of Mysore, London, 1956, pp. 34-35 ;
2. B. Subba Rao. Personality of India, 2nd Edn. 1958 P. 79.
3. M. Seshadri, ibid P. 34 ;
4. Subba Rao, Stone Age Cultures of Bellary, Poona, 1948, P. 20.

4. A small thin flake of quartzite (?) one side showing a full flake surface, ripple marks and the bulb of percussion. On the other surface a small part of the cortex is seen and the rest is covered with flake scars. The edges are sharp without any evidence of retouch or use marks.

5. A small thin flake of light yellowish chert (?) roughly triangular in shape, one side with a complete flake scar and a bulb of percussion while the other has at least about five flake scars. There is no evidence of edge retouch.

6. A thick flake of coarse brown jasper, one side having one large flake scar and bulb of percussion while the other retains on one half of the pebble cortex on the other half a number and exhibits of small shallow flake scars.

7. A thick flake of quartzite (?) with a flat under surface and ridged upper surface. It is roughly rectangular in transverse section. There is evidence of edge retouch on one of the laterial sides: probably used as a side scraper.

8. A large thick flake or lump of coarse pinkish jasper (?) the lower surface exhibiting a complete flake scar from which the bulb of percussion is broken, while the other surface has flake scars all rising from the edges towards the centre which retains a small part of the cortex. But there is no evidence of use or of retouch.

9. An elongated thick flake. roughly triangular in transverse section, of coarse brown jasper (?). The under surface is a complete flake scar with a bulb of percussion and shatter marks. The upper surface retains a large patch of cortex at the bottom : a number of irregular flake scars are seen over the rest of the surface. There is no evidence of edge-retouch or use.

10. A thin, irregularly rectangular flake of vein quartz with a roughly diamond-shaped transverse section, flat under surface and centrally thick upper surface. The edges on the two lateral sides and the bottom are sharp. The stone is very coase-grained to detect any evidence of working.

(b) *Pecked and ground stone industry* :

A good number of stone tools finished by pecking and grinding were found occurring in different trenches in levels belonging to both the cultural periods represented in the site. However, the majority were met within the Neolithic levels and the level representing the period of overlap between the Neolithic and the Megalithic. Trap, granite and milky quartz are the raw materials used in the preparation of stone tools like, celts and pounders. One peculiar feature of the site, however is that only finished implements or broken pieces of the finished celts are found. The absence of the waste flakes and tools in different stages of preparation clearly indicates that the tools were not of local manufacture and must have been imported from elsewhere. The source however is not possible to be known from the present evidence, as even extensive exploration in the Cauvery Valley has not yielded a flaking site yet.

On functional basis, they are classified here as follows for purposes of discussion.

A. Axes and chisel.
B. Grinding implements.
C. Hammer stones.
D. Querns.
E. Anvils.

Axes and Chisel—Edge Tools

A. These include what are generally classified as pointed butt-ended and polished stone Axes. Adzes were very rarely found in the collection. As only a few complete tools of the type came from the actual diggings, the tools collected from surface are also noted here for purposes of comparison. Varieties of fine grained trap have been used invariably in the preparation of these implements. When only the working edges are blunted the axes themselves appear to have been used as hammerstones. In a number of specimens evidence of bruising due to percussion is clear generally on the working edge, and sometimes even on the butt end (*See* below .....).

Axes :

Based on typological analysis the following sub-varieties are noticed.

(i) Made on tabular chunk of stone having rectangular cross section at the butt end, with broad. some what convex cutting edge and sides tapering straight up. Polishing is confined mostly to the working edge only.

(ii) This is a tabular chunk of stone, with short, almost rounded cutting edge, the sides tapering finally to a point. The polishing is confined to the cutting edge only.

(iii) Made on chunk of stone with one side flat, the other roughly flattened by chipping and grinding and the sides rounded. The cutting edge is broad and slightly covex and oblique. The sides taper to a pointed end thus giving a triangular form for the tool. Polishing is seen through out, though not so fine on the upper portions, as at the cutting edge.

(iv) Typologically similar to ii, but the flatness is achieved deliberately by probably chipping, pecking and grinding the core,. Fine polishing is seen throughout the surface.

(v) Similar to iv, except for the sides which rose up straight Possibly curving at a certain height abruptly to meet at a point. (The present specimen of this category is however broken at the top). Polishing is seen although but is done very finely at the working edge.

(vi) Similar to iv, but a highly convex cutting edge. Polished throughout.

(vii) Elongated triangular axe with smoothly sloping faces meeting at the sides, thus giving a lenticular cross section. It is ground all over. The cutting edge is slightly convex.

(viii) Variant of vii, but longish, thick and polishing is confined to the working edge only. Pecking is clearly visible in other portions.

(ix) Axes with thick ovoid cross-section in the middle, convex cutting edge and pointed butt. Polished at the lower parts and pecking visible at the upper portions.

(x) Similar to ix, but butt-end flattened. Polished all over.

(xi) Elongated triangular axe with almost straight cutting edge, finely polished butt end. Somewhat triangular cross-section at the butt.

(xii) Axe of triangular form with convex cutting edge and somewhat flattened butt-end and circular cross-section.

(xiii) Chisel : Small, triangular-shaped, prepared on a tabular chunk of stone with flat upper and lower faces, as well as sides, thus having a rectangular cross-section. The butt is somewhat flat, polishing is seen on the working edge only. Only one specimen was found.

Description of the Specimen

Type A i.

1. The butt end is now straight and flat probably due to breaking. Horizontal grinding marks are visible at the working edge, appears to have been resharpened after use.

From surface. L. 7.3 cm. XB. 6.3 cm. XT. 1.8 cm.

Type A ii.

2. Vertical striation marks are seen at the working edge, as well as a few batter marks. The top portion which is rough shows evidence of both flaking and pecking.

From surface. L. 12.2 cm. XB. 5.5 cm. XT. 2.8 cm.

Type A iii.

3. The butt end is slightly rounded. The cutting edge is somewhat oblique. Thin lines running vertically up from the cutting edge are visible under magnifying lens.

From surface. 11.6 cm. X. 6.6 cm. X. 2.7 cm.

4. The butt end is a little flattened, vertical lines starting up from the working edge as well as bruises are visible.

From surface. 9.7 cm. X. 4.8 cm. X. 3 cm.

5. Has a finely arched cutting edge. The butt is well pointed but is bruised.

From surface. 11.4 cm. X. 5.9 cm. X. 2.4 cm.

6 The butt is broken. The working edge is somewhat oblique.

8.3 cm. X. 4.8 cm. X. 2.3 cm.

6*a*. The butt end is roughly pointed, one side straight, other is sloping and the cutting edge is oblique. Made on a thin flake in the irregular surfaces. From overlap phase T.N. 16. 7.7 cm. X 4 X 1.8.

7. Only the bottom portion with the working edge. The working edge is oblique.

From the overlap phase. T.N. 7. 7.7 cm. X 4 X 1.8.

5.4 cm. X 6.8 cm. X 2.2 cm. (Not illustrated).

8. Only part of the middle portion of the tool.

From the overlap phase. T.N. 1.

6 cm. X5 cm. X 2.4 cm. (Not illustrated).

Type A iv.

9. The working edge is bruised by use. The top of the butt end shows some marks of pecking, and is a little flattened.

Form surface. cm. 9 X 4.7 X 2.4.

Type A v.

10. The butt is broken, as well as part of the lower portion. Thin lines parallel to the working edge are visible on one side, possibly due to repolishing. It appears this present specimen was used as a hammer-stone after it was broken, as clear bruise marks are seen at one of the corners just above the broken portion.

From surface. cm. 8.7 X 6.6 X 3.4.

11. Only the bottom portion; the working edge is much blunted, almost to roundness. From the late level of Neolithic (layer (5) of T.N. 3C).

cm. 4.7 X 9.6 X 4.9.

Type A vi

12. The present specimen is a clear indication of having been used as a hammerstone. The working edge is

almost rounded by putting this tool for that purpose. Clear bruises are there. The butt end is also flattened by continuous hitting. From a pit belonging to the Megalithic phase.

T.N. 23.

cm. 8 X 4.7 X 2.9.

13. Though typologically this falls within A vi group, this is an interesting specimen. It appears that it is pecked a second time to reshape it. A small patch of original polish near the working edge is still remaining. The top of the butt is somewhat flattened.

From the overlap phase. T.N. 14.

cm. 11 X 5.1 X 3.4.

Type A vii

14. The butt end is broken.

From the upper level of the Neolithic. T.N. 23.

cm. 7.6 X 4.9 X 2.3.

Type A viii

15. The cutting edge is slightly convex and blunted by use. Feeble vertical lines rising up from the working edge are indicative of the way in which the implement is used. The tip of the butt is a little rounded. Marks of pecking are visible on the portions higher up the working edge.

From surface. cm. 11.9 X 6.1 X 3.3.

16. Broken, some flaking is seen at the working edge. The butt is also broken as well as one of the broader faces patinated. From the Megalithic level.

T.N. 23 (Not illustrated).

cm. 10.3 X 6.3 X 3.2.

Type A ix

A number of pieces of butt portions with ovoid cross-section have come up from the habitation deposits. However they are difficult to include under definite classes. One piece with a pointed butt comes from the lower level of the Neolithic, as well as another piece of the middle portion of the butt. Two pieces come from the Megalithic levels.

17. Thin vertical lines are visible raising up from the working edge. The tip of the butt is broken.

From surface. cm. 12.6 X 5.4 X 3.6.

Type A x

18. The working edge is slightly convex and very much blunted by use. The tip of the butt is flattened.

From surface. cm. 10.1 X 6 X 3.5.

19. A small specimen. The working edge is blunted to roundness, probably by use as hammerstone. The top of the butt is also flat, probably by the use of that portion also for hammering.

From surface. cm. 7.8 X 5 X 2..7.

20. A very heavy specimen. The working edge is finely rounded and blunted by use. The top of the butt is flat.

cm. 15.2 X 7.2 X 5.2.

21. Only the upper portion, the working edge is broken. The top of the butt is somewhat flat.

From the overlap phase. T.N. 20 A.

cm. 9.3 X 5.4 X 3.5.

Type A xi

22 One face of the working edge is damaged. Small scars are also there on the other side caused probably by heavy use. Thicker and rounded on one side and the other thinner near the butt, due to the original stone. The butt-end is pointed. The vertical cross section of the butt is due to the shape of the original stone used for making the implement.

cm. 14.7 X 6.4 X 3.7.

Type A xii

There are a few specimens coming from the occupational strata, which have circular cross section at the butt portion. As they are pieces it would be difficult to ascribe them to any particular group. One is a top portion of the butt and with very finely pointed tip and circular cross section in the middle, coming from the topmost layer (T.N. 8).

23. The flattened butt and the working edge which is also somewhat flattened are very smooth and probably this specimen was used as a pestle.

From surface. cm. 10.2 X 5.8 X 3.6.

24. The working edge is broken; the butt is a little flattened.

From surface. cm. 10.7 X 4.6 X 3.5.

25. Only butt portion. The top of the butt is flat, probably having been, used for pecking. The broken portion have bruises, which probably suggests that this must have been used as a hammerstone.

From a pit ascribable to Megalithic phase.

T.N. 22 (Not illustrated). cm. 6.4 X 4 X 3.

Type A xiii

26. The top of the butt is flat. The working edge is straight.

From a pit ascribable to the Megalithic phase. T.N. 13.

cm. 7.2 X 3.2 X 2.2.

B. Grinding Implements

Varieties of grinding stones that were used with querns (described below) are found. They are mostly mostly made of granite. Quartz is also used often. The grinding stones vary in shape and size and would be classified as follows:

Type (i)

Oval grinding stones with rectangular cross section.

There are flat tabular chunks, flaked or packed into an oval form. The flat surfaces are smoothened due to use. The sides are straight vertically, thus obtaining a roughly rectangular cross section to the tool.

Type (ii)

Flat oval grinding stones with elongated oval cross-section. Belongs to the same class as the above except for the curved margins, giving an oval cross-section to the tool.

Type (iii)

A variety of (ii) but with one marginal side vertical, giving roughly a champhered, elongated oval cross-section.

Type (iv)

Oval grinding stones with plano-convex cross-section. These normally have only one grinding surface which is finely smoothened. The other side is convex giving a good hold.

Type (v)

Flat circular grinding stones with rectangular cross section. These are of the same type as (i) except that they have a roughly circular form.

Note.—The type E described as anvils may as well have been used as grinding stones.

Type (vi)

Circular grinding stone with plano-convex cross section. Only one side is flat due to use, the other is convex, thus obtaining a plano-convex cross section.

Type (vii)

Spherical balls. These are generally small, finely smoothened all over. These could have been used as pounder or playing balls or even as sling stones. One peculiarity is that these occur mostly in the Megalithic phase except one from overlap phase at this site.

Type (viii)

Spheroidal balls. Generally larger than the previous type. Though many show smoothening, a few appear to have been somewhat pecked or battered on the surface. The classification of this variety is arbitrary and these could have been used as pounders or the same may have been used for both grinding and hammering.

These can further be sub-divided, however, into purely spheroidal form and those with two or three flat, normally unused surfaces, either placed on the opposite or adjacent faces. This feature appears to be more due to the nature of the stone used for tool making, than its function.

Type (ix)

Elongated grinders (pestles). In form these are roughly cylindrical with the smooth working surface found either at one or both of the longitudinal ends.

Type (x)

Rectangular block with pecked faces.

Type (xi)

Rectangular block with curved corners and rectangular cross-section, but tapering longitudinally to a conical form.

Type (xii)

Cylindrical mullers with the curved face smoothened by use.

Description of the Specimen

Tpye B : I.

1. The upper surface is slightly curved. Granite. From the overlap phase—T. N. 18.
2. Broken. The corners in section are rounded. Granite. From the early historic phase—T. N. 3A.

3. Almost three fourths of the portion broken. One lateral phase is slightly curved and a small angle is seen at one of the corners instead of curve to be expected in an oval shape.

   Granite. From the late level of the Neolithic—T.N.22.

4. Irregularly oval. There is a right-angled corner.
   Granite. From the Megalithic phase—T.N. 3.

Type B : ii.

5. Slightly broken. There is a deep groove on one of th flat faces.

   Pot stone. From the Megalithic phase—T.N. 3.

6. Fragmentary.
   Quartzite. From the Early historical phase T.N. 23.

Type B : iii.

7. Disintegrating granite.
   From the late Neolithic level—T.N. 3.

7A. Slightly broken.
   Granite. From the ovelap phase—T.N. 3.

Type B : iv.

Broken. Only the flat face is smoothened by use.
Granite. From the Megalithic level—T.N. 23.

8. Granite. From a pit ascribable to the Early historical period—T.N. 23.

Type : B. V.

9. Only one flat surface is used and hence smooth.
   Granite. From the overlap level—T.N. 23.

10. Only one flat surface is used. There are four groves scratched on the flat smoothened surface.
   Pot stone. From surface.

11. Broken. Milky quartz.
   From the overlap phase—T.N. 23 A.

12. Granite. From the Megalithic level—T.N. 23.

13. Granite.
   From the Megalithic level—T.N. 22.

14. Granite. From the Megalithic level—T.N. 16.

15. Trap or potstone.
   From the overlap phase—T.N. 22.

16. A cubical block, appears to have been shaped to a spherical form. However, flat surfaces are still visible.
   Pot stone, From the Megalithic level—T.N. 4.

17. Spherical.
   Granite. From surface.

Type : *B.* vi.

18. Roughly spherical.
   Granite. From the overlap phase—T.N. 20A.

19. Roughly spherical with one unused flat surface. Granite. (trap ?).

From the Megalithic level—T.N. 3.

20. Spherical rubber. With a few irregular depressions. Depressions do not show either pecking or smoothening.

Quartz. From overlap phase—T.N. 24 A.

21. Spheroidal rubber with two flat, unused opposite sides and one oblique-adjacent side between the two. The tool is made out of a river pebble and the flat areas have the original pebble cortex.

Quartzite. From the overlap level—T.N. 23.

22. Spheroidal rubber with two sets, of opposite sides, flat and unused.

Quartz. From the Megalithic level—T.N. 20A.

Type B. vii

23. Re-used axe. Only former axe edge is flattened and smoothened by use.

Trap. From surface.

24. A blunted axe used as pestle. Both the longitudinal ends are finely smoothened.

Trap. From the ovelap level—T.N. 18.

25. Probably the middle portion of an axe, but thick. Both the longitudinal ends are smoothened by use.

Trap. From surface.

26. Probably a re-used axe. Flat and thin. Still the longitudinal ends show smoothening.

Trap. From surface.

Type B. viii

27. Broken. Granite. From the Early historical phase—T.N. 3.

D. Querns

Pieces of a few querns were found, mostly made on granite. The working surface generally showed high smoothness due to usage. This was generally concave, the concavity varies in degree in different specimens. Spherical grinding stones or pestles could be used with those with high concavity like specimen No. 1 below. One is possibly a piece of rotary quern, but the identification is doubtful. (See No. 9 below).

1. Portion of a quern with roughly circular, depression of about 8″ in diameter and $1\frac{3}{4}$″ deep at the centre. The bottom is flat, and smooth possibly due to dressing or by usage. The sides are irregular.

Granite. From Megalithic phase—T.N. 13.

2. Piece of a quern with concave surface. 2″ deep at the centre. The bottom and the sides are not well worked.

Granite. From the overlap phase—T.N. 22.

3. Piece of a shallow concave quern with a flat, dressed bottom and well dressed sides.

4. Piece of a quern with shallow working surface, of 1¼″ deep at the centre. The bottom is flat and well dressed, also the sides which are somewhat vertical.

Granite. From a pit belonging to Early historical phase—T.N. 16.

5. Piece of a small quern with flat, dressed bottom and vertical sides.

Granite. From the late Neolithic phase—T.N. 17.

6. Piece of a deeply concave quern, flat bottom and rounded sides.

Granite. From the Early historical phase, T.N. 3.

7. Small piece of a specimen with flat bottom and curved sides, all well dressed. The working area is shallow.

Granite. From a pit ascribable to the Megalithic phase—T.N. 23.

8. Piece of a small quern with flat bottom and vertical sides with almost flat working surface.

Granite. From overlap phase—T.N. 24A.

E. Anvils

There are two examples. Both are circular in form with a flat under surface, straight or somewhat curved sides and with a shallow depression on the top surface. Some of these may as well have been used as grinding stones.

1. The implement is well finished by pecking. The under surface shows a little bit of smoothness.

Granite. From the Megalithic phase—T.N. 20A.

2. Slightly broken. The under surface is flat and somewhat smooth. The upper surface is inclined and has slight depression.

Grainte. From surface.

F. Miscellaneous Stone Objects

1. A circular ring stone flattened on the two faces and the interior, while the outer face is rounded. It is about 0.6″ thick and the outer and inner diameters are 9 and 6 cms. respectively.

Of indeterminate use.

Pot stone. from T.N. 2, megalithic phase.

2. Flat circular disc with a perforation at the centre. The diameter of the disc is 3″ and that of the hole at the centre is 0.8″. One surface is decorated with straight lines radiating from the central hole to the periphery. The whole surface is smooth. Especially the highly smoothened inner surface of the hole indicates that something had been fixed in. Pot stone highly impregnated with mica. From early historical phase. T.N. -3. This is possibly too thick to be used as a spindle whorl.

3. Small flat disc with a hole at the centre. It is about ¼″ thick. The diameter of the disc and the central hole are 1.8″ and 0.5″ respectively. The hole somewhat tapers downwards. The whole surface is smoothened. Possibly a spindle whorl.

Pot stone.

From the late Neolithic level. T.N. 1.

4. A conical object with flat bottom and top finely tapering to a point, and a hole bored vertically from the pointed end to the centre of the flat bottom. The whole surface is smoothened. The circular bottom is 1½″ in diameter and the vertical height is also the same. This would have been used as a spindle whorl or a net sinker.

Pot stone. From Megalithic phase. T.N. 16.

5. A cloth polisher[1] of the shape of a bean seed, the whole surface is finely polished (especially the arc side). The arc end is flat and wide, while the chord end is normally curved thus giving a roughly triangular cross-section.

From the megalithic phase: T.N. 18.

6. A horn-shaped pot stone with flat bottom and convex upper side. It is polished: of indeterminate use.

From the Meglithic phase. T.N. 1.

7. Piece of a flat circular stone with the margin finely smoothened. Use not known.

From Megalithic phase. T.N. 22.

8. A piece of stone with a few grooves made at an end, with a sharp tool. From Megalithic phase. T.N. 17.

---

1. A cotton specialist who recently visited the Departmental Museum suggested that this could be a cloth polisher. I appears similar stones are still being used by weavers to rub the cloth, to give it shining, while it is still on the loom.

4. Metal Objects

Six metal objects were recovered from the digging : four of iron, two of copper and one of gold. The gold one was a spheroidal bead.

The following are the iron objects. All of them have been rusted with much encrustation and except No. 3 in which the encrusted surface had fallen off when recovered.

1. Fragment of a wire, with circular cross section 9 cms. long and 5 mm thick (from the Megalithic phase. T.N. 24A).

2. Nail with square cross-section, tapering towards both the ends. (From the Megalithic phase T.N. 24A).

3. Piece of a broad, thin knife blade with one edge straight. It is 3 cms. broad and 9 cms. long (from Megalithic phase T.N. 24A).

4. Fragment of dagger head or knife. The bottom and top portions are broken. This is a flat piece 10 cms. long 2 cms. broad at the bottom tapering upwards to a breadth of 1 cm. at the top. It is about 1 cm thick.

5. Beads

Thirty beads were found at T. Narasipur. Out of them, twenty four were of terracotta, three of glass, and one each of potstone, copper and gold. The beads were all of simple shapes mostly spheroidal except the potstone one. Neolithic strata yielded only one bead of gold. The copper bead was at the junction of the Neolithic with the strata representing the overlap phase. Eight terracotta beads came from the overlap-phase, one from the neolithic and the rest from the strat of the Megalithic and early historical periods respectively. The terracotta beads are generally of crude-make, mostly buff or red in colour, without any slip or ornamentation. A few of these have smoother surface, possibly due to the pre-firing application of a thin solution of the smooth clay from which the beads were made. A few beads are grey in colour. This colour variation may be just due to some defect in firing. Nos. 1, 2 and 8 are somewhat heavy, and these could have been used as net sinkers.
Plate .....

1. Gold :—Spherical ; from the upper stratum of the neolithic. T. N. 24 A.
2. Copper :—From the junction of the Neolithic with the overlap strata. T. N. 24 A.
3. Transluscent, light yellow glass, pear-shaped, with large perforation : from the overlap phase.

T. N. 22,

4. Greenish blue opaque glass ( ) ;—irregular and circular, from the overlap phase. T.N. 1.

1. Terracotta :—Irregular, standard—barrel, circular; from the early historical period. T.N. 8.

2. Terracotta :—(greyish) irregular standard, barrel, circular, from the overap phase. T.N. 24 A.

3. Terracotta :—Irregular, standard, barrel, circular, from the Megalithic period. T.N. 9

4. Terracotta :—irregular, pearshaped from the overlap phase. T.N. 22.

5. White opaque glass (?) :—short, circular unstratified.

6. Terracotta :—spheroidal : from the overlap phase. T.N. 20 A.

7. Terracotta :—irregular pearshaped, from the stratum of Megalithic culture.

8. Terracotta (grey):—Short, barrel, circular, has collar at one flaring end. The perforation from this side is flaring. From the other side a small cylindrical perforation is bored into two thin parellel grooves run round the belly ; from a pit ascribable to the early historical phase. T.N. 1.

9. Terracotta (grey) :—irregular, short, barrel, circular. The perforation is large ; from the overlap phase. T.N. 24A.

10. Terracotta (grey) very crude, irregular, standard bicone, circular : from the Megalithic period. T.N. 16 A.

11. Terracotta (greyish):—irregular, short, bicone, circular : from the overlap phase. T.N. 24A.

12. Terracotta :—irregular, short, barrel, circular, one side is chamfered, from the Megalithic period. T.N. 22.

13 Terracotta :—irregular, short, barrel, circular ; from the level of Megalithic culture T.N. 22.

14. Terracotta :— irregular, short-bicone, circular. has smoothened surface : from the early historical period. T.N. 22.

15. Terracotta (grey):—irregular standard, barrel, circular, from the Megalithic period. T.N. 24A.

16. Terracotta :—irregular, short bicone, circular : from a pit ascribable to the early historcal phase T.N. 20 A.

17. Terracotta :—irregular, standard, bicone, circular, from the Megalithic period. T.N. 20.

18. Terracotta :—spheroidal, from a stratum of Megalithic culture. T.N. 22.

19. Terracotta :—irregular, standard barrel. circular, from the overlap phase. T.N. 20A.

20. Terracotta :—irregular, short-barrel, circular; from the overlap phase.

21. Terracotta :—irregular, pearshaped, with the bottom chamfered; the perforation is large: appears to have been treated with wash, from a stratum of Megalithic culture. T.N. 22.

22. Terracotta :—Irregular standard, barrel, circular, appears to have been treated with thin wash, from a pit assignable to early historical phase. T.N. 3.

22. Terracotta :—Irregular standard, barrel, circular, smoothened surface, from the overlap phase. T.N. 20A.

23. Terracotta :—irregular, short-bicone, circular; the surface is smoothened; from the stratum of Megalithic culture. T.N. 22.

Pendant :

Grey potstone :—Short, circular, with a chamfered collar at the upper end; has two thin grooves running round the shoulder. The specimen is finely finished. From the Megalithic phase. T.N. 22.

Bangles.

Twenty three bangle pieces were recovered from the digging. The Stone-Age culture did not produce any : only one piece belonged to overlap phase, and the rest were associated with the strata of the Megalithic and the Early historical cultures. Out of the twenty-three bangle pieces twenty one are of opaque black glass, one of transluscent blue, and the other of stratified glass of rectangular section with dull green body and oblique black streaks and a rope design.

The preponderance of black glass bangle pieces is a noteworthy feature of the Megalithic phase of T. Narasipur. Three black glass bangle pieces have been found in the excavations at Brahmagiri. Similarly blue and stratified glass bangle pieces have been met with at Brahmagiri in the early historical levels only. Wheeler considered that there is no good evidence for the regular use of glass bangles in India prior to the first century A.D[1]. This appears to be corroborated by the occurrence of glass bangles in Southern India in other excavated sites also, only from the Andhra-Satavahana levels[2]. The association of glass bangles with the Megalithic phase suggests two possibilities : the use of glass bangles had commenced even earlier than the first century A.D. or the Megalithic culture in the T. Narasipur area survived to a considerably late date.

---

1. A. I. No. 4, P. 263. He did not rule out the possibility.
2. Brahmapuri, Nasik, Jorwe, Maheshwar.

The black bangle pieces generally have a plano-convex section. The thickness even in the same specimen varies. This irregular feature and the occurrence of noticeable aircavities within the body of the glass indicate the crude techniques employed in the industry at that time. The shapes of bangles appear to have been made by drawing wires of molten glass when it was in semi-viscous state, upto required length, and bending them t oa circular form. The two extremities were joined together when they were still in the viscous state. Evidence of polishing on the exterior only is seen on many specimens.

The technique of moulding the bangle from the glass in semi-viscous state may have been employed in the case of the stratified specimen also. The blue bangle piece is well made. It is uniform in thickness and colour through out.

Description of the Specimen

1. Fragment of black glass bangle with irregular plano-convex section and irregular thickness and shape. Has four grooves on the outerside.

(From the Megalithic phase, T.N. 20 A)

2. Fragment of opaque black bangle piece of plano-convex section. A ridge and four grooves are seen on the outer side. The specimen varies in thickness at different points and is not completely circular in shape.

(From the Megalithic phase, T.N. 20 A)

3. Opaque black bangle piece with plano-convex section. Irregularly made with the thickness and shape varying at different points.

(From the Megalithic phase, T.N. 20 A)

4. Fragment of black glass bangle piece with plano-convex section, irregular thickness and shape.

(From the Megalithic phase T.N. 20 A).

5. Opaque black glass bangle piece with thick irregular section varying from triangular to rectangular or plano-convex.

(From the early historical phase T.N. 22).

6. Fragment of black glass bangle with lenticular section. with irregular thickness and shape. This is some what broader than the previous specimens.

(From the Megalithic phase, T.N. 20 A)

7. Fragment of a transluscent blue glass with regular circular section. Small chamferings throughout: the external side giving linear-shaped plane surfaces are seen as a decorative feature. The nature of the glass and the refined technique employed in manufacture which are completely alien to the usual tradition noticeable in the provious specimens suggests this to be possibly an import.

(From the Megalithic phase, T.N. 22).

8. Fragment of stratified glass with opaque dull green core, rectangular section with oblique streaks of Black glass at the exterior corners, giving a rope design.

(From the early historical phase T.N. 22).

9. Fragment of black glass bangle, roughly rectangular in cross section.

(From the Megalithic phase, T.N. 20 A)

10. Fragment of black glass bangle roughly rectangular in cross section.

(From the overlap phase, T.N. 22).

11. Fragment of thick and wide black glass bangle lenticular in section.

(From the overlap phase, T.N. 24A).

12—20. Fragments of black glass bangle with roughly plano-convex sections, irregular thickness and shape. These are also some what broader than the majority of other specimens.

(From the Early historical phase, T.N. 16A).

13, 16. Fragment of black glass bangle, lenticular in cross section.

(From the Megalithic phase, T.N. 20 A)

14 & 17. Fragment of black glass with irregular thickness and shape and plano-convex section.

(From the Megalithic phase, T.N. 20 A)

15 & 19. Fragment of opaque black bangles. Plano-convex section, with one groove on the exterior. The specimens are irregular thickness and are not exactly circular.

(From the Megalithic phase, T.N. 20 A)

18. Fragment of a black glass bangle of roughly triangular section, irregular thickness. A deep flake runs into some distance on one of the faces.

(From the Megalithic phase, T.N. 20 A)

21 & 23. Fragment of a black glass bangle, roughly lenticular in section.

(From the Megalithic phase, T.N. 20 A)

22. Fragment of a very thick bangle with running concavo-convex section. The specimen is finely polished.

(From Overlap phase, T. N. 16 A)

6. Animal Remains

Dr. Bhola Nath of the Zoological Survey of India after examining the bones of animals states that the following animals were present:

(i) Bos Indicus Linn (Domestic humped Cattle): T.N. 13D layer (3), T.N. 1 (3) and T.N. 1 (2) This would correspond to the Megalithic phase.

(ii) Bos Bubalis Linn (Indian Buffalo) T.N. 1 (2)

(iii) Bos gaurus H. Smith (Gour or Indian Bison) Stray bones found on the site in a semi-fossilized state.

(iv) Cervus Unicolor Kerr (Sambar Deer) T.N. 4 layer (4), Corresponds to the Chalcolithic phase.

Dr. K. R. Alur of the University of Agricultural Sciences, Dharwar, examined the animal bones sent to him. He says that T.N. 24A Pit IV in layer (6) contained 9 specimens such as shoulder blade, tooth and ribs (Mandible 4, incisors 1 and ribs 3 of cattle. This group belongs to the Neolithic phase. This is significant as evidence for domestication of cattle by the Neolithic people on the site.

He is also of the opinion that there are some bone tools among the animal bones sent to him for examination. Numbers 84, 85, 86 (see his report in Appendix II) were fashioned as pointers and that they bear the mark of both design and use on them. Specimens 156 and 168 were made out of long bones and probably used as gouges. It is not certain that they belong to the Neolithic.

Human Remains

The human skeletal remains from the neolithic burial from the excavations were studied by Dr. K. C. Malhotra of the Deccan College, Poona, the report of which appears in the following pages as Appendix-1.

The study reveals that the skeletal remains belong to that of an adult female aged between 25 and 30 years. The individual exhibited medium stature, high vaulted head with a long face, high frontal bone with feeble supra-orbital ridges, slight subnasal prognathism medium-sized dentition. medium cranial capacity. On the basis of the above characteristics, it has been concluded that the individual may belong to the "Mediterranean" type without any admixture of Proto-Australoid or any other racial element. Further the skeleton under discussion has notable similarities with that of a male skull from Piklihal, with skull No. 5 from Tekkalakota and also a female skull from Nagarjuna Konda.

The study of the skeletal remains from the neolithic sites in the region shows that the neolithic folk of the Deccan belonged to two main ethnic groups—the Proto-Australoid and the Mediterranean groups and there was considerable amount of admixture between the two groups. Further it has also been noted that similar ethnic elements prevailed in other parts of contemporary India and probably continued in the Postneolithic times in the country and have continued to occur down to the present day.

7. Wood Remains

The wood remains from the excavations were studied by Dr. B.G.L. Swamy of the Presidency College, Madras a reporter which appears as Appendix III in the following pages. His study has revealed the growth of Ficus and Pongamia glabra, the species which are generally grown in the region even to-day.

Carbon 14 Dating

The Charcoal found in the megalithic and neolithic levels were studied by Radio-Carbon Laboratory of the Tata Institute of Fundamental Research, Bombay. Extracts of their report appear as Appendix IV in the following pages. The tests have shown that the date obtained for the samples from the megalithic phase is 220 ± 90 B.P. or C. 1630 A.D. which is due probably to the contamination of the charcoal by either humic acid or porcolation of subsoil water, The date is not truly indicative of the antiquity of the period and hence is to be rejected. But the two dates obtained from testing the charcoal from the neolithic levels—one from a pit sealed by (6) 3345 ± 105 B.P. or Circa 1500 B.C. and the other from (6) 3645 ± 105 B.P. or Circa 1800 B.C. agree generally with the dates obtained from other neolithic sites in the region such as :—

Hallur neolithic	3560 ± 105	B. P. or Circa	1700 B. C.
Sarganakallu ...	3440 ± 100	Do.	1600 B. C
Tekkalakota ...	3395 ± 105	Do	1400 B. C.
	3465 ± 105	Do	1670 B. C.
	3460 ± 135	Do	1695 B. C.
	3625 ± 100	Do	1825 B. C.
Utnur III A. ...	3875 ± 110	Do.	2035 B. C.
Utnur II A. ...	3890 ± 110	Do.	2050 B. C.
Utnur IB. ...	4120 ± 150	Do	2320 B. C.
Paiyampalli ...	3340 ± 100	Do	1390 B. C.

The dates from Utnur are generally earlier as the occupation there is supposed to represent an early phase of the neolithic or Primary Neolithic. (Allchin, in the Birth of Indian Civilisation, p. 163). Further Allchin opines that occupation at T. Narsipur might have started after the end of this first phase, marking the beginning of the second phase of this culture. As for Paiyampalli, the occupation here might have started rather late representing the third phase assignable to the 2nd half of the 2nd millennium B.C. Further, these dates also agree with the dates obtained for the contemporary chalcolithic cultures of Central and Western India with which the neolithic communities came into contact during this last phase.

Conclusions :

1. Though the excavations have revealed four cultural phases at the site, the most outstanding is the Neolithic. There was an overlapping of cultures. Nevertheless we have indications that the Neolithic phase started independently. The study of the cattle bones from the Neolithic pit sealed by layer (6) from T.N. 24A is of great significance. Since they are exclusively of cattle, as pointed out by Dr. K. R. Alur, there is good reason to believe that the Neolithic

folk on the left bank of the Cauvery were cattle keepers and knew domestication of cattle. Thus there is evidence for a pure Neolithic phase at the T. Narasipur site. The presence of a quartz blade-flake with a good bulb of per cussion in the same Neolithic pit indicates the use of such implements in the Neolithic. Such implements were found on the surface also.

2. Perhaps, at a later date, Chalcolithic influences arrived at the site from the Deccan and permeated the original Neolithic culture. Since this deposit is thin, it is possible that this mixed-culture, namely, Neolithic-Chalcolthic, was short-lived on the site.

APPENDIX I

REPORT ON THE HUMAN SKELETAL REMAINS FROM NEOLITHIC T. NARSIPUR (MYSORE STATE).

by

DR. KAILASH CHANDRA MALHOTRA, M.SC., PH.D.,
Lecturer in General Anthropology,
Department of Anthropology,
Deccan College, Poona-6.

Contents

List of Illustrations

Dioptrographic Drawings :

1. Cranium. Norma Lateralis
2. Cranium. Norma Verticalis
3. Cranium. Norma Occipitalis
4. Mandibular outline in Orthogonal lateral projection, showing the Scheme of angles in the gnathogram and to show the different Corpus-ramus slant as indicated by the pogonion (pg)—Condylion Superius (cds) diameter.
5. Superimposition of Sagittal
   Contours (T. Narsipur Specimen..... ;
   Piklihal Male———————————— ;
   Piklihal Female————————————)
6. Superimposition of Sagital
   Contour (T. Narsipur Specimen———————— ;
   Tekkalakota Specimen No. 5 (Male)
   .....)
7. Superimposition of Sagittal Contour
   (T. Narsipur specimen———————————— ;
   Tekkalakota specimen
   No. 2 (Female).....

Plates :

1. Cranium. Norma Frontalis (PL.45A)
2. Cranium. Norma Verticalis (PL.41B and 46B)
3. Cranium. Norma Lateralis (PL.41A and 46A)
4. Cranium. Norma Basilaris (PL.45B)
5. Mandible. Vertical aspect (PL.43)
6. Mandibular Dentition (PL.44A)
7. Bones of the extremities (PL.44B)

List of Tables—

I. Introduction

In the present report an attempt is made to study in detail the anthropometry and comparative analysis of the osseous remains of an individual recovered from the neolithic occupational levels at T. Narsipur (Mysore State) during the year 1961-62. The excavations were carried out by Dr. M. Seshadri, Director, Department of Archaeology, Government of Mysore. The skeletal material was sent to the present author by Dr. Seshadri in March, 1966.

I express my indebtedness to Dr. Seshadri, who kindly gave me the opportunity to examine the Skeletal material. I am thankful to Prof. I. Karve, my Head of the Department. who generously kept at my disposal laboratory equipment and other facilities. I am deeply beholden to Prof. H. D. Sankalia, my Joint Director, for his encouragement, guidance and technical facilities which he gave during the preparation of this report. Thanks are also due to Shri Y. S. Rasar, draftsman at this institute, for inking the line drawings and to Shri V. K. Nagpure, who prepare the excellent photographs.

I am highly obliged to the Director, Dr. D. K. Sen Anthropological Survey, Government of India, who readily responded to my request and kindly permitted me to use the unpublished data on the "Nagarjunakonda Neolithic Skeletal material".

II. Laboratory Considerations

(i) *Reconstruction.*—The Skull was found in rather fragmentary state and some of the bones were quite deformed post-mortally. Inspite of these drawbacks, because of the presence of articular surfaces of most of the major bones, a reconstruction of reliable nature could be achieved. Most of the measurement recorded are eliable and wherever there is some doubt in the correctness of the measurement, it is indicated by question-mark at an appropriate place.

(ii) *State of preservation of osseous remains.*—Although the degree of preservation is different for different bones, on the whole the preservation of osseous remains is medium. Below is given a detailed account of the preservation of individual bones.

Calvaria.—The calvaria is incomplete and its state of preservation is poor. A number of bones, in particular of face, were completely disintegrated and could not be lifted. The frontal bone is incomplete. The left half of this bone, however, is almost intact, except slight damage of the orbital margins. The right half of frontal bone is represented only by parts of the orbit. Although the coronal suture is present on both sides, the left one is not clearly visible due to encrustation. Both the parietals are intact and are in good state of preservation. While the left temporal is complete, the right one shows absence of certain parts-the squamous portion including parts superior to the *supra-meatal* crest. The occipital bone is badly preserved. It is broken and considerably distorted.

Face.—The face is represented only by a few bones. The right zygomatic process is fairly intact. The anterior aspects of this bone are, however, missing. The left zygomatic is completely absent. Fortunately the upper jaw, *i.e.*, maxilla, is fairly presented, which made possible to record critical measurements. While body of both the maxillae is absent, the alveolar margins are in very good condition. In the median sagittal plane, however, where right and left maxilla meet, a small segment is missing, with the result the right central incisor is lost. The palate is incomplete, particularly in its posterior region. The nasal bones are absent.

Mandible—Compared to the preservation of bones of calvaris and face, the lower jaw is in much better state of preservation. The left side is almost complete, except for a small damage caused at the head of the condyloid

process, as also at the gonial region. The right side has suffered greater degree of damage. The gonial region is missing. Of this side both condyloid and coronoid processes are also damaged, the former a little more.

Dentition.—The preservation of the dentition is as follows :

	Right								*Left*							
Maxillary	8	7	6	5	4	3	2		1	2	3	4	5	6	7	8
Mandibular	8	7	6	5	4	3	2	1	1	2	3	4	5	6	7	8

Thus except for right central maxillary incisor, which is lost postmortally, the dentition is complete.

Bones of the extremities.—Out of the two clavicles only left is available. Even this has suffered a good deal of disintegration, both at the sternal and acromial ends. Incomplete right and left humerie are present. The left one is fairly intact, save for the damages caused at upper and lower epuphysis. For the right one only shaft portion is available. The right scapula is absent and the left one is represented by glenoid cavity. Both right and left radie are present with upper and lower ends missing. Right and left ulnae are intact. The right one is almost complete except for the lower epiphysis. Both the epiphysis of left ulna are missing.

Besides, lots of fragments of skull, ribs, plalanges, etc., are also present. These, however, did not yield any significant information.

The lower extremity is represented by rather a few bones. The pelvic girdle was found in rather fragmentary condition. These fragments could not be put together. Both right and left femora are present. The lower epiphisis of both the femora a is missing. It is interesting to note that the bones of the lower extremity below femur are completely absent. The reason for their absence is given elsewhere.

III The degree of Post-Mortem osseous deformations

It has been observed that most of the osseous remains of greater antiquity undergo certain amount of deformations, which varies considerably with the nature of the soil and climatic conditions. The main agent responsible for such deformations is the pressure caused by the superinent earth. Such cumb deformations are reported in many ancient Skeletal series (Hausen, 1919). The Skeletal series reported from different parts of India have also shown varying degree of such deformations (Malhotra, 1965 ; Rao and Malhotra, 1965 ; Kennedy and Malhotra, 1966, etc.). The degree of deformations noticed in these specimens were beyond doubt to be confused with the general a-symmetrical nature of the skulls (Woo, 1931 ; Karve, 1931).

Of all the bones the skull has suffered maximum degree of distortion. Both the parietals at euryon region have flareol out laterally, there by affecting the breadth measurement. The occipital bone which is fractured has been pushed anteriorly. This has affected the length measurements (Figure 1). The face has been pressed and tilted towards the left side. Because of the distortion, naturally, certain measurements could not be recorded correctly. The degree of post-mortem distortion suffered by the post-cranial bones is not much.

The material at hand reveals that the neolithic people of T. Narsipur did not practice ante-mortem deformations as is reported in some other series (Brothwell, 1963). The author is not aware of such a phenomenon occuring in any of the Skeletal series reported from Indian sub-continent.

IV Sex of the individual

The skull is medium and smooth in appearance. The bones are not very thick. Although the glabella is prominent, the supra-orbital ridges are faintly developed. The forntal bone rises vertically with a gentle curvature. The

frontal eminences are prominent. The upper margins of the orbits are quite sharp. The malars, as could be judged from the left side are rather well marked (figure 2; Plate 2). Certain amount of this prominence, particulaly of the right side. (Plate 2), is due to distortion. The mastoid processes are small and show lesser degree of muscular impressions. The posterior root of the Zygomatic process of the temporal bone is not continuous with the supra—meatal crest. This feature, according to Keen (1951) is a female characteristic. The occipital bone presents feebly developed nuchal ridges.

The jaw does not show signs of strong musculature. The clim is prominent. The gonions are not flared up laterally. The pogonion-cordylion superious line (Figure 4), however, according to Oetteking (1945) indicates a masculine nature of the jaw. The teeth are of medium size. The development of linea aspera is sub-medium. The fragments of innominates are too fragmentary to provide meaningful clues.

The various morphological features of the skull and other bones reveal that this specimen is a female.

V Age of the individual

The age of this specimen appears to be between 25-30 years. Due to the bad condition of preservation of the cranium, it was not possible to observe the degree of closure of different sutures. The sagittal suture is patent. The dentition has been of great help in noting the age of this specimen. Both maxillary and mandibular III molars have fully erupted. The degree of attrition of all the teeth, except molars, is medium. First molars of both dentitions have undergone considerable amount of attrition. Brothwell (1963) has prepared a very useful 'attrition chart' based on the earlier British skeletal series. According to him the attrition chart could safely be used in populations of Neolithic to mediaeval times. How far these findings are applicable to the Indian Skeletal series are yet to be worked out. The amount of attrition suffered by the molars, according to Brothwell, would put the individuals in to the age group 25-35 years. Since, however, the III molars of both dentitions show no sign of wear out, the individual should be put in to the lesser age group, *i.e.*, 25-30 years.

The union of epiphysis with the shaft of long bones is complete. According to Stevenson (1924) such fusions are usually completed by the end of 23 years.

III. Measurements and Morphology

The measurements were taken according to the standard technique of Martin and Saller (1956). The other techniques followed are mentioned elsewhere (Kennedy and Malhotra, 1966). Wherever necessary photographs and diaptrographic tracings are given for illustrations. Craniometric data and osteometric data are presentedin Tables I to IV.

The skull is 172 mm. long and 136 mm. (?) broad, having a length breadth index of 79.06. This obtained value puts the individual into the mesocranic category. It may be pointed out here that the skull has undergone considerable degree of distortion, as has already been mentioned, in the occipital bone and euryou region of the parietal bone. Both these regions are very vital in recording the length and breadth measurements. Although the author tricd various methods to reconstruct the skull to the nearest degree of its prestine condition, certain amount of uncertanity is evident. Thus the cranial index possibly could not be the correct one, and has to be accepted with reservations. The auriculo-bregmatic height of the Skull is 118 mm. The basion-bregmatic height is 140 mm. The values of the two indices derived, *i.e.*, height-length and height-breadth, are 81.95 and 100.29 respectively. According to these values the Skull is hypsicranic and Akrocranic. Since, the skull is not sufficiently intact, to render direct cranial capacity, an indirect method developed by Lee and Pearson has been utilized, which involves the three measurements : length, breadth and height. According to this the cranial capacity is estimated at 1300.87 c.c. The frontal bone is medium in its diameter (96 mm. ?).

It rises from the point nasion, bulges slightly anteriorly in the glabellar region and then gently slopes backwards. The supra-orbital ridges are almost absent but the glabella is very promiminent. The endocranial surface of the frontal crest is moderately developed. The process nasale, as also the frontal process of the maxilla are quite broad. Although the inter-oribital breadth could not be taken, the maximum breadth taken at right angle to the medium sagittal plane, at this region, is 27 mm. The greatest thickness of the frontal bone is 9 mm. The temporal ridge is faintly marked. Although cranial sutures are not clearly decernible, they seem to be simple. The parietal eminences ar very well developed. The glenoid fossa is medium. The vault is well arched and high. The occipital bone yielded information but of a limited nature. The occipital torus seems to have been feebly developed. The nuchal lines are not prominent. The lambdoid suture shows no sign of obliteration. The wormion bones are absent. When viewed superiorly, the skull resembles sergi's bysoides' (Figure 2; plate 2).

Due to the bad state of preservation of various facial bones, it was not possible to record many measurements. Fortunately the two heights, *i.e.*, upper facial and total facial, could be obtained accurately, which are 73 mm. and 113 mm. respectively. Although the right zygomae is absent, with the help of left one it was possible to record the maximum bizygomatic diameter, which is 122 mm. (?). The values of upper facial and total facial indices are 59.83 and 92.62. These values thus indicate that the build up of the face is long. The upper face is leptene and the total face is leptoprosopic. Unfortunately nothing could be said about the form of the nose, except that, as indicated by the interior glabellar region the nasion depression is medium. The subnasal region presents some interesting features. The prosthion-subnasale height is 22 mm. The sub-nasal grooves are prominent. This region forms a convexity in the median sagittal plane. This feature is rather peculiar with this specimen. In other specimens there is a marked concavity (TKT, specimen Nos. 2 and 5; Nevasa specimen Nos. 10, 18 and 49). The sub-nasal prognathism is very slight. The specimens from Piklihal, Brahmagiri and Tekkalakota, however, show marked sub-nasal prognathism. The angles of the orbits are rounded and have a rectangular shape. The Orbital index is 85.36, which puts the individual into hypsiconch category. The palate is fairly deep and hyperbolic. The length and breadth of the palate is 49 mm. and 36 mm. respectively. The palatal index is 73.46 which falls in to the leptostaphyline category.

The mandible is medium in its size and shows feeble uscular impressions. The length of the corpus is 74 mm. and has a symphysial height of 29 mm. The ramus is relatively narrow, with its maximum breadth of 33 mm. (left). The height of the ramus is 63 mm,. which is medium. The condylosymphysial length is 111 mm. The corpus-ramus angle is 116.0° degrees. The chin is prominent and medium in its size. The gonions are not everted and the area which affords, attachment to the ptergoid and mylohoid muscles is not prominent. The bicondylar diameter is 100 (?) mm., and the bigonial diameter is 79 (?) mm. Both these values are medium. The lengths of the right and left molar rows are 29 mm. and 30 mm., respectively. Even when the length of the premolar tooth row is considered, the jaw presents remarkable sysmetry. In all probabilities the shape of the face or this individual could have been oval. The coronoid process (left) exceed the condyloid processes in elevation. The mandibular notch is quite deep (plate 6).

The posterior surface of the jaw presents strongly developed genial tubercle. The diagastric fossae are well marked. The mental foramen is quite highly placed.

It is interesting to note the presence of a small, medium in depth, cavity at the base of the II molar of the left side of the mandible (plate 5). This abcess is the result of caries suffered by the II molar.

The dentition is represented by all fully erupted permanent teeth. The teeth are of medium size. The first and third maxillary and mandibular molars being the largest and smallest of the molar series, respectively. There is a distinct variation in the form of the occlusal surfaces of the molars. The

mandibulars have more or less a square shape (plate 7). The maxillary ones, are quadrilateral with rounded off angles; the buccal surface being broader than the lingual. The third mandibular molars do not differ significantly in size when compared to the rest, but the maxillary third molars present interesting differences, being much smaller in size when compared to the I and II molars. It is interesting to note the rather reduced left maxillary II molar (plate 4). Such reduced molars have been reported from different regions (Brothwell, 1963). The present author, however is not aware of such a phenomenon being present in the ancient skeletal series from the Indian sub-continent.

There is nothing peculiar about the cusp-pattern except that it is of '4 cusp and groove' pattern. Crowding and overlapping is absent. The teeth come into correct occlusion, the maxillary incisors having a slight overbite. The canines are levelled with the rest of the teeth.

The degree of attrition suffered by different teeth varies considerably. Except the molar row, the attrition has been medium for both the dentition. The maxillary right and left I molar shows typical 'hollowed out' dentine wear. The II and III molars of this dentition show practically no sign of attrition. On the other hand the mandibular I and II molars have undergone much more attrition, with the result that almost no enamel could be seen in the occlusal view. The III molar of both the sides show practically no wearout. Therefore it is quite safe to assume that the person must not have lived long after the III molars of both the dentition got fully erupted.

There is good evidence of caries. Both the right and left molars of mandibular dention show advanced condition of caries. The right one (plate 7) has been lost ante-mortem due to caries and the left one in its lingual aspects has already partly disintegrated.

The bones of the extremities could not be subjected to a large number of observations and measurements (plate 8). The left clavicle is rather feebly built, with 140 mm. (?) as its length and mid-shaft circumference as 32 mm. It is spherical in its transverse section. Of the two mid-shaft diametres the anterior-posterior exceeds superior-inferior. In the mid-shaft diametres the anterior—posterior exceeds superior-inferior. The mid-shaft index is 110.00. The portion of the left scapula yielded only two measurements, *viz.*, length and breadth of the glenoid cavity, wihch are 31 mm. and 20 mm. respectively. The humerus (right) is stout and thick with a length of 316 mm. (?). The cross-section of it is oval. Both the mid-shaft diametres, *viz.*, anterior-posterior and lateral have the same value, being 19 mm. The minimum shaft circumference is 55 mm., and the length—minimum shaft circumeference index is 17.40. The general morphology of the humerus suggests medium degree of muscular development. Only three measurements of reliable nature could be recorded on both the radiae. The maximum length of the left radius is 24.5 mm. (?). The mid-shaft diametre for right and left radius is 10 mm. and12 mm. respectively. The lateeal mid-shaft diameter of both the sides is 15 mm. The minimum shaft circumference is 37 mm. and 38 mm. for the right and left radius respectively. The length—minimum shaft circumference index for the right one is 15.10. The deltoid tuberosities are low and medium. The estimated length for both the ulnae is 275 mm. (?). The minimum shaft circumference is 32 mm. for the left one and the length—minimum shaft circumference index is 11.63. The medium development of the cristae interossae and the more or less straight shaft (Plate 8) suggests that there was not much of mechanical demand. Due to bad state of preservation and the incompleteness of both the femurs, not many measurements could be recorded. The length values are medium. Both the mid-shaft diametres do not show any bimanual difference. The mid-shaft circumference, however is more in the left, being 90 mm. The development of *linea aspera* is medium in both the femurs.

The living stature estimates were calculated on the basis of the maximum lengths of humerus, radius, ulna and femur by applying formulae developed by Pearson (1899); Dupertuis and Hadden (1951) and Athawale (1965). The results are summarised in table V. The obtained mean values by three methods vary considerably. The lowest estimate is obtained for Pearson's

formula, being 158.61 cms. and the highest after Depertuis and Haddon's formulae which is 165.60 cms. Values obtained after Athawale's formula are intermediate between the two estimates mentioned above being 164.08 cms. It was, however, considered desirable to calculate the over-all mean based on the three methods, which is 162.76 cms. which puts the individual into 'medium-statured category'.

IV Discussion

Before discussing the racial affinities, it is felt necessary to give, in short, the most salient features of the specimen under consideration.

The individual possesses : a medium sized, high vaulted head with a long face ; medium-broad, high frontal bone with rather feebly developed supra-orbital ridges ; the subnasal prognathism very slight ; high narrow zygomae ; medium inter-orbital breadth, medium depth of the nasal root ; deep long palate ; ill developed occipital torus and nuchal lines ; medium-sized dentition and sub-medium development of the linea aspera ; medium cranial capacity and medium stature.

The above mentioned characteristics thus indicate beyond doubt that the individual conforms to the racialtype commonly called 'Mediterranean'. There is no evidence of the presence of Proto-australoid, Negrito, Veddid racial features in the present skeleton.

The region which includes Andhra Pradesh, Maharashtra and Karnatak roughly called as Deccan, has brought forth a large number of sites belonging to different cultural periods. These have helped us considerably in understanding the cultural-physical history and development of man in this region. Thus a number of Palaeolithic sites have been discovered. Besides there is no dearth of sites which have yielded a good deal of microliths. There are atleast twenty sites which have yielded Neolithic-Chalcolithic cultural periods. Similarly quite a good number of megalithic deposits have been brought to notice. There is no lack of early historical sites as well. It is thus quite safe to infer that this region was fairly well inhabited in both time and space by certain Groups of people and that although the cultural-physical history of early occupants is uncertain, it is quite clear for the latter periods.

So far, except Langhnaj (Sankalia and Karve 1949) no other site younger than Neolithic period, in this region, has yielded human Osseous remains. It may be mentioned here that Karve—Corvinus Kennedy's (1963) recent excavation at Langhnaj have brought some doubts regarding its pre—pottery character.

In this context mention may be made of two human mandibles found by Prof. H. D. Sankalia and Shri S. N. Rajguru of the Deccan College, Poona, in a talus deposit on the right bank of the river Mula-Mutha near the Bund garden (Poona). This deposits is of Pleistocene origin.

So far quite a number of sites belonging to Neolithic-Chalcolithic periods have yielded human osseous remains. They are Brahmagiri, Maski (Thapar, 1959), Piklihal (Allchin, 1960), Bahal, Tekwada, Nevasa, Chandoli, Tekkalakota. The reports on the Skeletal material from Maski, Bahal and Tekwada are yet to be published. Four of these sites have, however, yielded distinct Neolithic cultural layers and a comparison with these will not be out of place here. The results obtained on the basis of comparison of the material remains unearthed from these neolithic sites, reveal striking similarities between these people. In the light of the said findings it would be worthwhile to try to see the extent of physical affinities shared by these people.[1]

[1]*Information kindly supplied by Dr. H. D. Sankalia and mentioned with permission.*

Two distinct racial types, *viz.*, Proto-australoid and Mediterranean, have been identified among the Skeletal remains from these sites. The latter type, however, occurs predominantly. Some of the Skeletons conform entirely

to either of the racial types stated above, the others possess them in mixed form, the degree of admixture, however, varies considerably from specimen to specimen.

No affinities are revealed with the single child skull from Brahmagiri (stone Axe culture) which 'appears to be of the autochthonous Australoid type, (Sarkar, 1960, P. 24). Out of the two skulls—a male and a female, found at Piklihal, the male skull shows striking similarities with the present Skeleton Fig. 5). The superimposition of mid-Sagittal craniograms, however, indicate two major differences, *viz.*, the well developed *supra-orb-ital* ridges and the prominent occipital torus, which are absent in the present skull. A part of these differences could, however, be explained because of the difference in the sex of the two specimens. In addition, while the face of the present skull is leptene, both the Piklihal specimens have mesne. The specimens also differ in sub-nasal and facial prognathism. The observed differences could, however, be inter-type variations.

Although the Tekkalakota (TKT) material comprises of osseous remains of five individuals, only three specimens numbered 2,5 and 7 are fairly intact and have yielded dependable measurements and observations. Out of these three specimens, mid-sagittal craniograms are available for specimens 2 (female) and 5 (male) only. These have been superimposed in figure 6, and reveal interesting information. Except for the cranial index, the excessive development of the occipital forms and supra-orbital ridges, the sub-nasal prognathism, the present specimen shows remarkable similarity with the TKT specimen No. 5. With the female specimen on the other hand, are noticed more differences. Such a situation seems evident as to what Malhotra (1965) writes regarding the racial composition of the TKT series. He writes, "The predominant racial type identifiable among the neolithic-chalcolithic specimens from Tekkalakota is" mediterrenean". The non-mediterranean elements are identified as "proto australoid phenotypic element" (p. 156). The differences pointed out above are thus partly because of the proto-australoid admixture in among the TKT specimens and other differences could be inter-type variations.

The cranial measurements available for the Nagarjuna—Konda series (Gupta, Dutta and Basu, unpublished) are a few and therefore, the comparison is of limited nature and tentative. The three male skulls of the series have long heads. The female skull, however, has a cranial index of 79.89 which agrees very closely with the present skeleton.

It is thus concluded that the T. Narsipur skeleton shows a good deal of similarity with the other neolithic skeletal series of the Deccan. It is quite probable that the people who were responsible for the neolithic cultural phase in this region possessed a uniform morphological type and whatever differences are noticed are due to admixture with the earlier occupants and that these are of later origin. It is also evident from the preceeding discussion that the basic racial element, in all the neolithic sites of the Deccan, seems to be the mediterranean, superimposed on the autochthonous (?) proto-australoid type.

The presence of mediterranean racial element in the later cultural periods *i.e.*, chalcolithic and Megalithic, brings home certain point of interest. One would like to know the source of origin of this element in these assemblages. Does it indicate that the Megalithic builders were originally a heterogeneous group and that the mediterranean racial element was one of the constituents or does it indicate that although the Chalcolithic and Megalithic builders were homogeneous initially and that they to some extent, absorbed both culturally and physically the already existing people in this region ? An attempts is made here to answer these questions.

The present Skeleton shows striking parallels in among some of the chalcolithic skeletal series. Thus it is observed that some of the specimens from Nevasa, Lothal (Chatterjee and Kumar, 1962) Mohenjodaro (Swell and Guha, 1931) and Harappa (Gupta, Dutta, and Basu, 1962) show a good deal of resemblance. It must be recalled here that the similarity is not found to exist

with all the specimens belonging to the above mentioned skeletal series. The differences are met, in particular, with the broad-headed as also with rather long-headed elements present in these series.

The presence of mediterranean racial type is also evidenced from Megalithic skeletal series, e.g. Adichanallur (Chatterjee & Kumar, 1962) Brahmagiri (Sarkar, 1962), Yelleshwaram (Gupta and Dutta, 1962), etc., of this region. Thus at Brahmagiri the Skeleton I—F—a male, is almost indistinguishable from the present one. The Yelleshwaram specimen No. I-12/a female, shows good deal of similarity with the present specimen.

A peep into the racial composition of the Megalithic builders would be in line with the questions posed above.[1] Three racial types have been identified in among the Megalthic skeletons, *viz.*,

(1) Broad headed, rugged, tall, with protruding occiput,—often compared with the Scytho-Iranians (Sarkar, 1960, Gupta and Dutta, 1962).

(2) Long to medium headed, medium statured, medium to long face, well arched cranial contours, associated with protruding occiput—often referred to as the Proto-Mediterranean or Mediterranean type.

(3) Very long-headed, small cranial capacity, sloping forehead, pronounced supra-orbital ridges, deep nasal root, wide and low nose, alveolar prognathism and short stature—often identified as Proto-Australoid, Australoid, Veddoid, Dravidoid, etc.

Of the three types listed above the first one occurs predominantly and the third only occasionally. The second one, however, occurs quite frequently. The above situation could be explained as follows :

The Deccan has perhaps been the strongest hold of the megalithic builders. when they arrived in this region, they were probably a homogeneous lot. They arrived here roughly at about first millinnium B.C. They had to face the then-already existing two different groups of people, the primitive hunters and food gatherers having proto-australoid racial features, and the primitive agriculturists having neolithic economy belonging to mediterranean racial stock. It is well established by history that when different races of man come into contact with each other they more often breed than bleed. Social intercourse between groups always implies sexual intercourse. One can concieve of the resistance offered by the inhabitants to the immigrant group. In this process it is quite likely that even when they did not exchange genes in a socially approved manner, they must atleast have lived together, leading thereby to social stratification.

From the foregoing discussion thus the present author is inclined to accept the possibility that the Megalithic builders when they entered into this sub-continent were a more or less homogeneous people, as far as the physical characteristics are concerned and whatever heterogenety is depicted is due to admixture with the then already existing people.

Lastly it may be mentioned that some of the living groups in Karnatak show remarkable affinities with the present Skeleton. These groups belong to different social ranks. Thus there are untouchables, like adikarnatak, artisan like Agasa, Ganiga, Panchal Sonar and Brahmins like Babbur Kamme, etc.[2]

---

1. This problem has been discussed at some length by Roy-Choudhary, 1964.
2. For comparison purposes the author has utilized the anthropometric data on the Karnatak region by Karve (1954).

Summary :

1. The present report deals with the Osseous remains of an adult female, excavated from Neolithic T. Narsipur (Mysore State).

2. The Individual possesses a medium-sized, high vaulted head, long face, feebly developed supra—orbital ridges and occipital torus, slight sub-nasal prognathism, medium cranial capacity and medium stature.

3. The individual conforms to the racial type designated as " Mediterranean."

4. It is indicated that the present find shows a good deal of similarity with the other neolithic skeletal series of the Deccan (Piklihal, Tekkalakota, Nagarjuna Konda). It is proposed that the people who were responsible for the Neolithic Cultural phase in the Deccan possessed a uniform phenotype *i.e.*, 'Mediterranean' and that whatever differences are dipicted are largerly due to admixture.

5. The present find shows striking parallels in among some of the chalcolithic skeletal series (Nevassa, Lothal, Mohenjodaro and Harappa).

6. Similarity is also revealed with some of the Megalithic skeletal series (Adichanallur, Brahmagiri, Yelleshwaram, etc.).

7. Some of the living groups in Karnatak, belonging to different social ranks conform to the present find.

LITERATURE CITED

Allchin, F. R. 1960, Piklihal Excavations. Andhra Pradesh Government Archaeologicsl Series, No. 1 Hyderabad.

Ayer, A. A. 1960, Report on the Human Skeletal Remains excavated at Piklihal near Mudgal. In Piklihal Excavation by Allchin, F. R. (1960), Hyderabad.

Brothwell, D. R. 1963. Digging up Bones, London.

Chatterjee, B. K., Kumar, G. D. 1962. Racial Elements in Post-Harappan Skeletal Remains at Lothal. *Anthropology on the March*, pp. 1–6. Edited by Bala Ratnam, Madras.

Chatterjee, B. K., Gupta, P. 1963. Report on the Adichanallur Skulls, Calcutta.

Dupertuis, C. W., Haddon, J. A. 1951. On the Reconstruction of stature from Long Bones. *Am. J. Phys. Anthrop.* Vol. 10–4,–pp. 463–515.

Gupta, P., Dutta, P. C. Basu, A. 1962. Human remains from Harappa. *Memoir of the Anthropological Survey of India.* No. 9. pp. 13–188. Calcutta.

Gupta, P., Dutta, P. C. 1962. Human Remains excavated from Megaliths at Yelleswaram (Andhra Pradesh). *Man in India.* Vol. 42, No. 1. pp. 19–34.

Gupta, P. Dutta, P. C. Basu, A.—Human Remains from Nagarjunkonda. *Memoirs of the Anthropological Survey of India* (In Press). Calcutta.

Hausen, S. 1919. On Posthumous deformation of fossil Skulls. *Man* Vol. XIX, No. 65, p. 121, London.

Karve, I. 1931. Normale Asymmetric des menschiliehen Schadels. *Inang. Diss.* Berlin.

Karve, I. 1954. Anthropometric Measurements in Karnatak and Orissa and a Comparision of these two Regions with Maharashtra. *Journal of the Anthropological Society of Bombay.* Vol. VIII, No. 1. (n.s.), pp. 45–75.

Karve, Corvinus, G., Kennedy, K. A. R. 1964. Preliminary Report on Langhnaj. *BDCRI*, Vol 24. pp. 44–57.

Keen, J. A. 1950. Sex differences in Skulls. *Am. J. Phys. Anthrop.* Vol. 8. pp. 65–80.

Kennedy, K. A. R., Malhotra, K. C 1966. Human Skeletal Remains from Chalcolithic and Indo-Roman Level from Nevassa : An Anthropometric and Comparative Analysis. Deccan College, *Building Centenary and Silver Jubilee Series* No. 55.

Malhotra, K. C. 1965. Human Skeletal remains from Chandoli. In Chalcolihic Chandoli by Deo, S. B., Ansari, Z. D. 1965. *Deccan College Monograph Series* No. 37. pp. 143–184.

Malhotra, K. C. 1965. Human Skeletal remains from Neolithic Tekkalakota. pp. 109–162. In the Stone Age Hill Dwellers of Tekkalakota. by Nagaraja Rao, M. S. Malhotra, K. C. 1965. Deccan College, *Building Centenary and Silver Jubilee Series*. No. 31.

Martin, R., Saller, K. 1956. Lehrbuch der Anthropologie. 3. Lieferung ; pp 453–475. Stuttgart.

Oetteking, B. 1945. Skeletal remains from Prince William Sound Alaska *Am. J. Phyzs. Anthrop.*, Vol. 3, pp. 177–205.

Pearson, K. 1889. On the reconstruction of Stature of Prehistoric races : Mathematical contributions to the Theory of Evolution. *Phil. Trans. Roy. Soc.* of London. Vol. 192, pp. 177–244.

Rajguru, S. N. Kennedy, K. A. R. 1964. The Skeletal Evidence for Pleistocene. Man in India *B.D.C.R.I.* Vol. 24. pp. 71–76.

Roy-Choudhury, D. 1964. Problems of Race identification and Race Movement in Pre-and Protohistoric India. *Proc. Summer School in Anthropology.* Dalhousie.

Sankalia, H. D. Karve, I. 1949. Early microlithic Culture and people of Gujarat. *American Anthropologist.* Vol. 51–1, pp. 28–34.

Sarkar, S. S. 1960. Human Skeletal remains from Brahmagiri. *Bull. of the Dept. of Anthopology.* Vol. 9–1, pp, 5–26. Calcutta.

Sewell, R. B. S., Guha, B. S. 1931. Human remains in Mohenjodaro and the Indus Civilization (In Sir John Marshall). Vol. 2, pp. 599–648.

Stevenson, P. H. 1924. Age order of Epiphyseal Union in Man. *Am. J. Phys. Ahthr.*, Vol. VII, pp. 53–93.

Thapar, B. K. 1957. Maski– 1954 A Chalcolithic Site of the Southern Deccan. *Ancient India*, No. 13.

Woo, T. L. 1931. On the asymmetry of the human Skull. *Biometrika.* Cambridge, Vol. 22, pp. 324–352

TABLE I

Carnial Measurements (In Millimeter Units Unless stated otherwise)

Sl. No.	*Measurements*	*Values*
1.	Maximum Cranial length	172 (?)
2.	Maximum Cranial Breadth	136 (?)
3.	Basio – Bregmatic Height	140
4.	Auriculo – Bregmatic Height	118
5.	Least Frontal Diameter	96 (?)
6.	Bizygomatic Diameter	122 (?)
7.	Bimastoid Diameter	111
8.	Biauricular Diameter	123
9.	Nasion – Basion Line	100
10.	Prosthion – Basion Line	108
11.	Nasion-Prosthion Line	73
12.	Nasion–Gnathion.lion	113
13.	Prosthion–Subnasale Height	22 (?)
14.	Inter–Orbital Breadth	25
15.	Orbital Breadth – L	41 (?)
16.	Orbital Height – L	35 (?)
17.	Maxillo–Alveolar Length	53
18.	Palatal Length	49 (?)
19.	Palatal Breadth	56
20.	Greatest Occipital Breadth	115
21.	Frontal Chord	112
22.	Parietal Chord	109 (?)
23.	Frontal Arc	128
24.	Parietal Arc	126
25.	Transverse Cranial Arc	307
26.	Horizontal Circumference	484 (?)

N.B.—Cranial indices are given in Table VI.

TABLE II

Mandibular Measurements

Sl. No.	*Measurements*	*Values*
1.	Condylo-Symphysial Length	111
2.	Bigonial diameter	79 (?)
3.	Bicondylar diameter	100 (?)
4.	Corpus Length – R	..
	L	74
5.	Mandibular Length	74
6.	Molar tooth row Length R	29
	L	30
7.	Premolar tooth row Length – R	42
	L	42
8.	Ascending Ramus height – R	..
	L	63
9.	Ascending Ramus Max. breadth – R	..
	L	33
10.	Symphysial height	29

Angles

1.	Chin angle	73.5 Degrees
2.	Mentobasal angle	75.0. ,,
3.	Anterobasal angle	90.5. ,,
4.	Basal Angle	63.0. ,,
5.	Postero–Basal angle	116.0. ,,
6.	Ramus–angle	63.0. ,,
7.	Condylo–Coronoid angle	9.0. ,,

Second Premolar :

MD —R	70
—L	70
BL —R	80
L	80
I —R	87.50
L	87.50

Medial Incisor :

MD —R	40
—L	40
LL —R	60
L	60
I —R	66.66
L	66.66

MD=Mesio–Distal Diameter.
BL=Bucco—Lingual Diameter.
LL=Labio—Lingual Diameter.
I=Crown Index

TABLE III

Measurements and indices on Dentition.

Maxillary

Third Molar.

MD —	R	80
	L	50
BL —	R	100
	L	60
I —	R	80.00
	L	91.00

Second Molar:

MD —	R	90
	L	100
BL —	R	110
	L	110
I —	R	81.81
	L	90.90

First Molar:

MD —	R	90
	L	90
BL —	R	110
	L	110
I —	R	81.81
	L	81.81

Second Premolar:

MD —	R	60
	L	60
BL —	R	90
	L	90
I —	R	66.66
	L	66.66

First Premolar:

MD —	R	60
	L	60
BL —	R	90
	L	90
I —	R	66.66
	L	66.66

Canine:

MD —	R	70
	L	70
LL —	R	80
	L	80
I —	R	87.50
	L	87.50

Lateral Incisor:

MD —	R	60
	L	60
LL —	R	70
	L	70
I —	R	85.71
	L	85.71

Medial Incisor:

MD —	R	..
	L	80
LL —	R	..
	L	70
I —	R	..
	L	114.28

Mandibular

Third Molar:

MD —	R	110
	L	90
BL —	R	100
	L	110
I —	R	110.00
	L	81.81

Second Molar:

MD —	R	..
	L	100
BL —	R	..
	L	100 (?)
I —	R	..
	L	100.00

First Molar:

MD —	R	111
	L	111
BL —	R	100
	L	111
I —	R	111.00
	L	100.00

First Premolar:

MD —	R	60
	L	60
BL —	R	80
	L	80
I —	R	75.00
	L	75.00

Canine:

MD —	R	60
	L	70
LL —	R	80
	L	70
I —	R	75.00
	L	100.00

Lateral Incisor:

MD —	R	50
	L	50
LL —	R	70
	L	70
I —	R	71.42
	L	71.42

TABLE IV.

Measurements and Indices of Bones of the Upper and Lower Extremities

Measurements

Clavicle (L) :—

1.	Maximum Length	140 ?
2.	Mid-Shaft Diameter, Anterior-Posterior	11
3.	Mid-Shaft Diameter, Superior-Inferior	10
4.	Mid-Shaft circumference	32
5.	Acromial Head Diameter	..
6.	Conoid Tubercle Diameter	14

Indices :—

1.	Length-Minimum Shaft circumference	22.85
2.	Mid Shaft	110.00
3.	Clavicular-Humeral	44.30

(II) Scapula :—

1.	Glenoid Fossa Length	31
2.	Glenoid Fossa Breadth	20

(III) Humerus :—

1.	Maximum Length—R	316 ?
2.	Mid-Shaft Diameter, Antero-Posterior-R	19
3.	Mid-Shaft Diameter, Lateral-R	19
4.	Minimum Shaft circumference-R	55

Indices :—

1.	Length-Minimum Shaft circumference	17.40
2.	Humero-Femoral	71.80

IV. Radius :—

1.	Maximum Length—L	245
2.	Mid-Shaft Diameter, Anterior Posterior-R	10
	L	12
3.	Mid-Shaft Diameter Lateral-R	15
	L	15
4.	Minimum Shaft circumference-R	37
	L	38

Indices :—

1.	Length-Minimum Shaft circumference	15.10
2.	Radio-Humeral	92.25

V. Uina :—

1.	Maximum Length-R	275 ?
2.	Olecranon Diameter, Anterior-Posterior-L	20
3.	Olecranon Diameter, Lateral-L	29
4.	Minimum Shaft Circumference-L	32

Indices :—

1.	Length Minimum shaft circumference	11.63

VI. Femur :—

1.	Maximum Length-R	440 ?
	L	438 ?
2.	Maximum Trochanteric Length-L	408 ?
3.	Head Diameter, Anterior-Asterior-R	40
4.	Head Diameter, Superior-Inferior-R	39
5.	Mid-Shaft Diameter, Anterior-Posterior-R	28
	L	28
6.	Mid-Shaft Diameter, Lateral-R	26
	L	27
7.	Mid-Shaft Circumference-	85
	L	..
	o R	90
8.	C llo-Diaphysial Angle-R	134 Degrees

TABLE V.

Estimation of Stature.

Authors		*Range*	*Mean*
Pearson	..	154.567—163.103	158.61
Dupertuis and Haddon	..	163.360—168.464	165.60
Athawale	..	161.580—166.580	164.08

TABLE VI

Comparative Craniometric Data

SITE	*T.-Narasipur*	*Brahmagiri*	*Tekkalakota*				*Piklihal*	
SPECIMEN No.	1	*Br.* 17B.10	1	2	5	7	*Skull Site VII*	*Skull Site VIII*
SEX	F		F	F	M	M	F	M
Indices :								
1. Cranial Length—Breadth	79.06	69.72	..	67.40	72.43	74.16	74.90	80.80
2. Basion—Bregma Height—Length ..	81.95	..	..	..	78.92	..	74.86	81.98
3. Auricular—Bregma Height—Length ..	68.60	59.50	70.69	62.98	64.86	65.73	62.86	72.09
4. Basion—Bregma Height—Breadth ..	100.29	..	..		105.22	..	100.00	101.44
5. Auricular—Bregma Height—Breadth ..	86.76	85.89	..	93.44	89.55	88.64	83.97	89.21
6. Nasal	..	..	..	46.15	56.00	..	51.01	51.01
7. Palatal	73.46	..	..	75.00	90.00	..	86.00	100.00
8. Orbital	85.36	..	..	..	..	..	80.50	77.80
9. Upper facial	59.83	..	..	..	..	..	52.30	52.40
10. Total facial	92.62	..	..	..	..	..	101.00	97.10
11. Transverse—Cephalo—Facial ..	86.52	..	..	..	..	..	97.70	90.64
12. Zugo—Frontal	78.68	..	..	..	..	..	73.43	75.39
13. Zugo—Mandibular	64.75	..	..	..	..	..	79.68	73.80
14. Transverse—Fronto—Parietal ..	68.08	..	..	68.85	67.31	70.15	77.86	66.90
15. Cranial Capacity (in c.c)	1,300.87 c.cs.	..	..	1,037.07	1,450.02	1,262.7	1,252.00	1,441 c.c

APPENDIX II

Report on Animal Remains from T-Narasipur Excavation (Mysore)

BY DR. K. R. ALUR

Introductory :—

Having read in paper about the find of relics of neothilic age at T-Narsipur, I approached Dr. M. Sheshadri Director of Archaeolcgy, in Mysore to send me the Animal bones' from the excavation for my inspection and study, as I am already engaged in that pursuit. He readily agreed to my request and arranged to despatch the bones through a messenger, accompanied by an Officer.

Packing and contents :—

The bones are collected and grouped into 9 packets, which are compactly packed into a wooden box. It is accompanied with the following packing note.

(1) T, N. 22 SW Pit—I, Pitll—	Bones seem to be cattle, teeth, legs etc.
(2) T. N. 23 S (3)	Tooth, legs, arms, skull etc
(3) T. N. 23 S (3)	do
(4) T. N. 23 S (3)	do
(5) T. N. 16 Pilt III	Pieces of bones
(6) T. N. 24 (3)	Legs, joint bones, tooth etc.
(7) T. N. 23 S Pit	Bone pieces
(8) T. N. 24 A (3A)	Tooth of an animal
(9) T. N. 24 A Pit IV (6)	I Shoulder blade, tooth, ribs, etc.

N.B.—These include the whole lot of animal bones of T. N. 16, 22, 23, and 24A found during the excavations in five seasons.

Condition of the bones :—

Most of the bone collection are in good state of preservation, though fragmentation has occured. Out of the collection of 255 bones, only 39 are whole bones which consist of teeth, short and irregular bones. There are II segments which belong to immature animals. Fifteen segments belong to large sized animals, II to small sized animals, and the rest to average-sized animals, as compared to the stature of the present day animals.

Chart showing the provenance of bones numbered :—

Packet No. 1	1 to 36
Packet No. 2	37 to 116
Packet No. 3	117 to 158
Packet No. 4	159 to 201
Packet No. 5	202 to 231
Packet No. 6	232 to 238
Packet No. 7	239 to 246
Packet No. 8	247
Packet No. 9	248 to 255

Species-wise Classification of the Bones

Site : T.N. 22 S.W. Pit 1, Pit II
Contents : Bones, seem to be of cattle. Teeth, legs etc.
Number : In this lot, there are 36 identifiable bones.

Identification	*Cattle*	*Total*
1	2	3
Skull	1	1
Mandible	4	4
Teeth (molar)	5	5
Vertebrae	3	3
Ribs	6	6
Humerus	1	1
Radio-ulna	4	4
Metacarpus	3	3
1st Phalanx	2	2
Ilium	1	1
Tibia	1	1
Fibular Tarsal	1	1
Central and IV tarsal	1	1
Metatarsus	2	2
A flat bone	1	1
Total ..		36

Site : T.N. 23 S (3). Three packages (consisting of serial Nos. 2, 3, and 4.)
Contents : Tooth, legs, arms, skull, etc.
Number : In this combined lot, there are 164 idetifiable bones.

Identifications	*Cattle*	*Sheep or goat*	*Canine*	*Miscellaneous*	*Tortoise*	*Total*
1	2	3	4	5	6	7
Skull ..	8	..	..	..	..	8
Mandible ..	15	1	1	..	..	17
Teeth (molar) ..	5	3	..	..	..	8
Vertebre ..	6	2	..	..	..	8
Ribs ..	28	11	..	..	..	39
Scapula ..	3	..	..	..	..	3
Humerus ..	2	..	..	..	.	2
Radio-ulna ..	3	3	..	..	..	6
Carpal bones ..	1	..	..	..	..	1
Metacarpus ..	6	2	..	..	..	8
Phalanges ..	6	3	..	..	..	9
Ilium ..	..	1	..	..	..	1
Femur ..	2	..	..	..	..	2
Tibia ..	4	..	..	..	..	4
Tarsal bones ..	4	..	..	..	..	4
Metatarsus ..	2	..	..	..	..	2
Shell ..	..	..	..	13	1	14
Long bone ..	..	..	..	..	2	2
Bone tools ..	..	..	..	..	5	5
Brain fossil ..	..	..	..	..	20	20
Fragments not identified ..	..	..	..	..	2	2
Total ..						165

Site : T.N. 16 Pit III.
Contents : Piceces of bones.
Number : There are 30 segments in all.

1	2	3	4	5	6	7
Skull ..	5	..	1	..	..	5
Mandible ..	1	..		..	..	2
Teeth (molar) ..	1	..	..	..	..	1
Ribs ..	1	2	..	..	..	3
Metacarpus ..	3	..	..	..	..	3
Ph langes ..	8	..	..	..	..	8
Sesamoids ..	1	..	..	..	..	1
Tarsal bones ..	2	..	..	..	..	2
Shell ..	..	..	..	1	..	1
Bone not identified ..	..	..	..	..	4	4
Total ..						30

Site : T. N. 24 (3).
Contents : Legs, joint bones, tooth, etc.
Number : In all there are 7 segments.

1	2	3	4	5	6	7
Mandible ..	1	..	..	..	..	1
Rib ..	1	..	..	..	..	1
Vertebre ..	1	..	..	..	..	1
Ulna ..	1	..	..	..	..	1
Metacarpus ..	1	..	..	..	..	1
Femur ..	1	..	..	..	..	1
Fibular tarsal ..	1	..	..	..	..	1
Total ..						7

Site : T.N. 23 S Pit.
Contents : Bone Pieces.
Number : There are 8 specimens.

1	2	3	4	5	6	7
Skull ..	..	..	..	..	1	1
Molars ..	1	..	..	..	..	1
Ribs ..	1	..	..	..	..	1
Metacarpus ..	1		..	..	..	1
Femur ..	2	..	..	..	..	2
Tibia ..	1	..	..	..	..	1
Metatarsus ..	1	..	..	..	..	1
Total ..						8

Site : T.N. 24 A (3A).
Contents : Tooth of an animal.
Number : There is only one specimen.

1	2	3	4	5	6	7
Tush ..	..	..	1	..	..	1
Total ..						1

Site : T.N. 24 A Pit IV layer (6)
Contents : Shoulder blade, tooth, ribs, etc.
Number : There are 9 specimens.

1	2	3	4	5	6	7
Mandible ..	4	..	..	..	..	4
Incisors ..	1	..	..	..	..	1
Ribs ..	3	..	..	..	..	3
Total ..						8

Observations

Medullosis in bones.—The presence of a medullary cavity is one of the normal characters of long bones. Cattle are provided with such bones in the region of arm, forearm, and shin. The digits carried by the leg, were originally five (pents-dactylus), which are now only two (bidactylus). In this act of evolutionary suppression, the three metacarpals and three digits have disappeared. The remaining two, also are undergoing changes, which is manifest in the medullary cavities of these bones. In the present collection, specimen Nos. 22, 27, 28, 34, 35, 56, 183, 184, 185, 186, 197 and 206 are devoid of this, either partly or completely. Specimen Nos. 31 and 134 are showing the cavity clearly, as a contrast to the above specimens. This character, is made use of to interpret the antiquity of the bone specimens. The present bone material, belongs to animals in the transitory stage. Hence, they are not so old as to belong to the neolithic period. but at the same time, they are sufficiently ancestral to the bones of the modern animals.

Indications of the occupational use of Animals.—By the examination of the bones and bone segments, it is difficult to assess the occupational use, for which the animals were commissioned. Occasionally, indications are available, by certain diseases which affect the bone of the animals, used for heavy draft work. It is only the discovery of these, that gives clue, of the nature of their employment.

Specimen No. 151 and 218 which are bones of the hock joint (central and IV tarsal) are placed in the direct line of the concussion transmitted by the body. Its ossification with the adjacent bone (2nd and 3rd tarsal) is a clear proof of the heavy strain it has suffered. This can be taken as an evidence to assess that these animals were subjected to strenuous duty, which could only be for agricultural purposes.

Food habits of T.Narsipur dwellers.—The food habit of the T. Narsipur dwellers is reflected in the bone collected from this area. The indications are, manifested in the form of either chopping, roasting or segmenting for extraction of marrow. Specimen No. 77 which is the olecranon process of the sheep or goat, is chopped. Specimen No. 83 which is part of a long, bone has been carved to make a rectangular window, to drain out the marrow. Specimen No. 150 which is tibial tarsal, has been roasted in fire to remove the adhered flesh. The above facts indicate that the residents made use of the flesh of cattle, sheep or goats, as edible food.

Bone tools.—The presence of bone tools provides further evidence regarding the flesh edibility, by the settlers. Specimen Nos. 84, 85 and 86 are fashioned as pointers, and they bear the mark of both design and use, on them. Specimen Nos. 156 and 168 are made out of long bones, and are probably used as gouges and scrapers. A full bone tool is rare, as it is apt to fragmentation, along with others.

A scapular wound.—Specimen No. 7 is a flat bone (scapula) of cattle, which has a dent on its external surface, while the medial plate is split vertically. The injury is caused when the animal was alive, as it bears marks of the repairative process.

The scapular bone which is placed in the region of the chest, partly covers the heart. The bone, would not be pierced through and through, unless a sharp object is darted with force. In the present case, it is probable that a stone splinter is discharged through a bow. This indicates that the people were not only aware of hunting practices, but also knew that it is only possible to kill an animal, if the arrow is shot right into the heart. Accordingly, the aim has been on the correct spot, but has missed the target narrowly, hence the scapula is pierced, but the animal is not killed instantaneously.

Brain fossils.—The excavator, while gathering material from the site, has included about 20 pieces of concretions, and has included them along with the 'animal remains'. I have now given them specimen Nos. 89 to 104 and 198 to 201. They are stone hard and produce metallic sound when struck one over the other. They vary from light grey to cream, in colour. As fragmentation has occured, they do not present a composite brain structure. When individual segments were examined under double focussed convex lences, with observer looking through the third magnifying glass, the counter casting of the brain contour with gyri and sulci in the negataive phase, were

visible. The nueronic content appeared as a bundle of fibrils and typical brain cell appearance was veisible. This in itself, is a clear evidence for their being brain fossils. However, formative stages of fossilizatien, are also traced, Specimen Nc. 9 is a skull part with bilateral cornu, and ditched forehead. Specimen Ncs. 117 and 118 are cranial bowls, with lateral walls. They contain a mass of light grey earth. As the bony vault is removed, the still maintained contcur, bears negative indentatiens of its parietal roof. It is a phenomenon, that the earthy casting should still have a hold, supported only by the basal bony floor ; and has suffered no damage in transit. It is probable that these are cases of brain digestion, unfavourable to fossilizatien. The find of an empty skull, a cranium with counter cast earthy brain, has supported the identification of brain fossils.

Specimen No. 239 *is unidentified.*—It is a composite bone, the nature of which is not yet identified. It apparently looks like a part of a skull, but the cranial, characters of the same are under-developed. It is still under study.

Summary.—The animals represented at T.Narsipur are cattle, sheep and goats canines and tortoise. The residents knew the use of animals for socio-economic purpose. They made use of flesh and marrow, as edible food. Hunting was one of the practices for procurement of food.

APPENDIX II—*Continued*

Report from Dr. Bholanath

1. *Bos indicus Linne.*

(The Domestic Humped Cattle of India)

T. N.—13D layer (3) (1) One complete left tibia ; (2) one complete right femur.

T. N.—1 layer (3) 3. (1) One fragment of the frontal bone of the skull.

T. N.—1 layer (2) One distal fragment of right humerus.

2. *Bos bubalis Linn.*

(The Indian Buffalo)

T. N.—1 layer (2) One distal fragment of right humerus.

3. *Bos gaurus H. Smith*

(Gour or Indian " Bison ")

The remains of this animal are semi-fossilized.

Stray :—

T. N.—One left femur (reconstructed).

T. N.—One proximal fragment of left tibia fused with the proximal portion of calcaneum.

T. N.—One fragment of tibia fused with the tuber calcis of calcaneum.

T. N.—One distal fragment of the 3rd and 4th matatarsal.

4. *Cervus unicolor Kerr.*

(The Sambar Deer)

T. N.—3 layer (2) One distal fragment of the right humerus.

T. N.—4 ; layer (4) One distal fragment of the left humerus.

Altogether four species have been recorded.

APPENDIX III

Report from Prof. B. G. L. Swamy.

The charcoal pieces you had sent contain two different woods :

1. Ficus sp :—(It is not possible to determine the species with certainty, as the charcoal pieces presented very small surface. May be Ficus religiosa or Ficus glomerate).

2. Pongamia glabra (Most of the charcoal pieces belong to this species).

I may observe that both these species are distributed in the areas around your source of finding.

APPENDIX IV

Report from Tata Institute of fundamental research.

T. Narasipur, Mysore.

TF—414 MEGALITHIC (?) 220 ± 90 (225 ± 90)

Charcoal from T. N. 24 A, Locus C-D, Depth 0.67 m., Layer 3A, Sample No. 3, 1965. Comment : Sample is much younger than expected.

TF—413 NEOLITHIC. 3345 ± 105 (3445 ± 110)

Charcoal from T. N. 24A, Locus C-D, Depth 1.77 m., Pit IV sealed by Layer 6 (?), Sample No. 2, 1965.

TF—412 NEOLITHIC. 3645 ± 105 (3755 ± 110)

Charcoal from T. N. 24A, Locus A-B, Depth 1.6 m., Layer 6, Sample No. 1, 1965.

Note :—The first date for each sample is based on $\frac{1}{2}$=5568+30 yrs. ; the second date, within parenthesis, is based on the value of 5730 ± 40 yrs. for the half-life of radiocarbon. For inter-comparisons dates based on the same value of C14 half-life should be used. For converting these dates into B. C./A. D. scale, 1950 should be used as reference year.

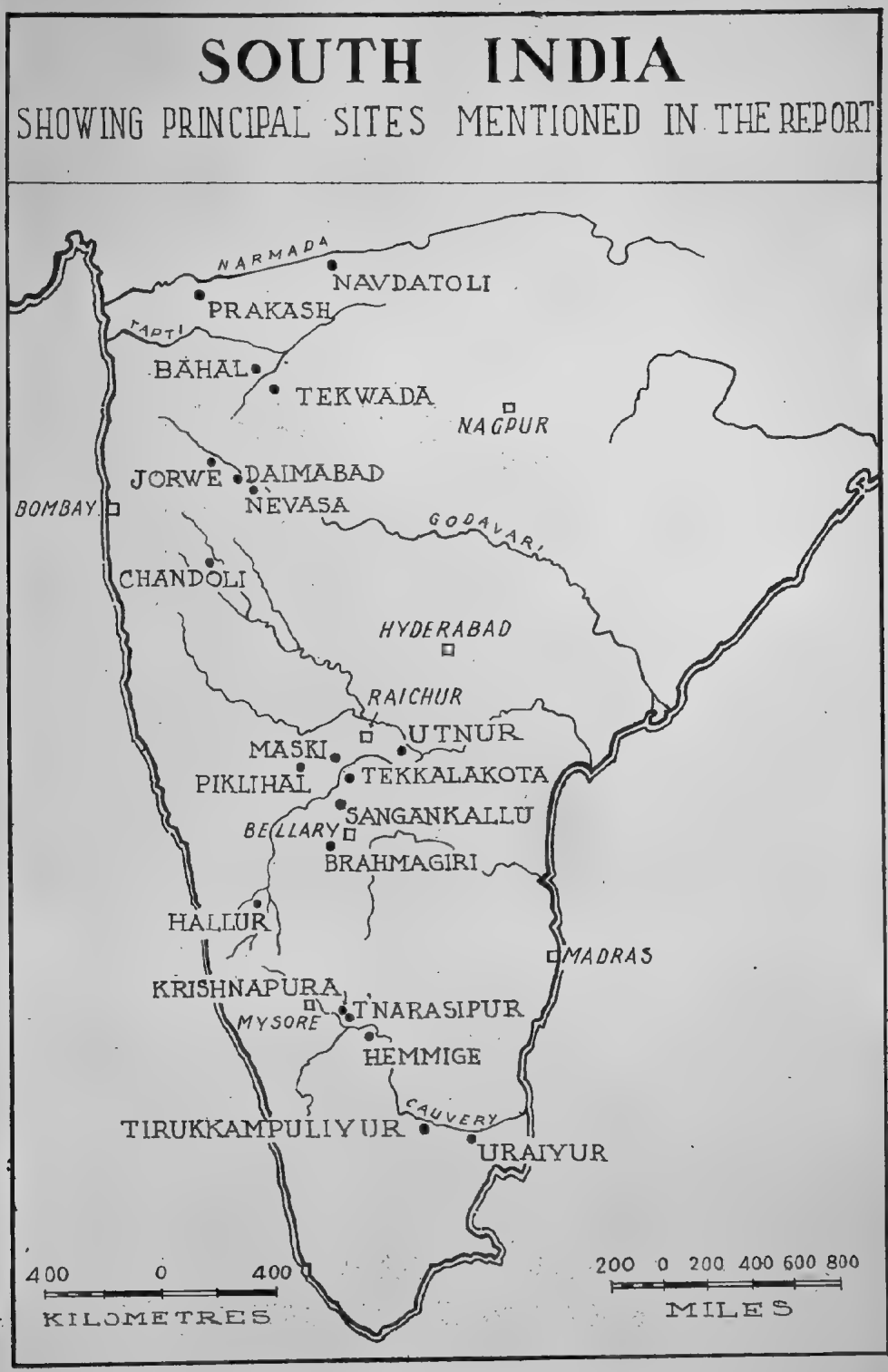

Plate No. 1: South India—Showing principal sites mentioned in the Report

Plate No. 2 General view of the Ancient site at T. Narasipur.
(Pages 5—6)

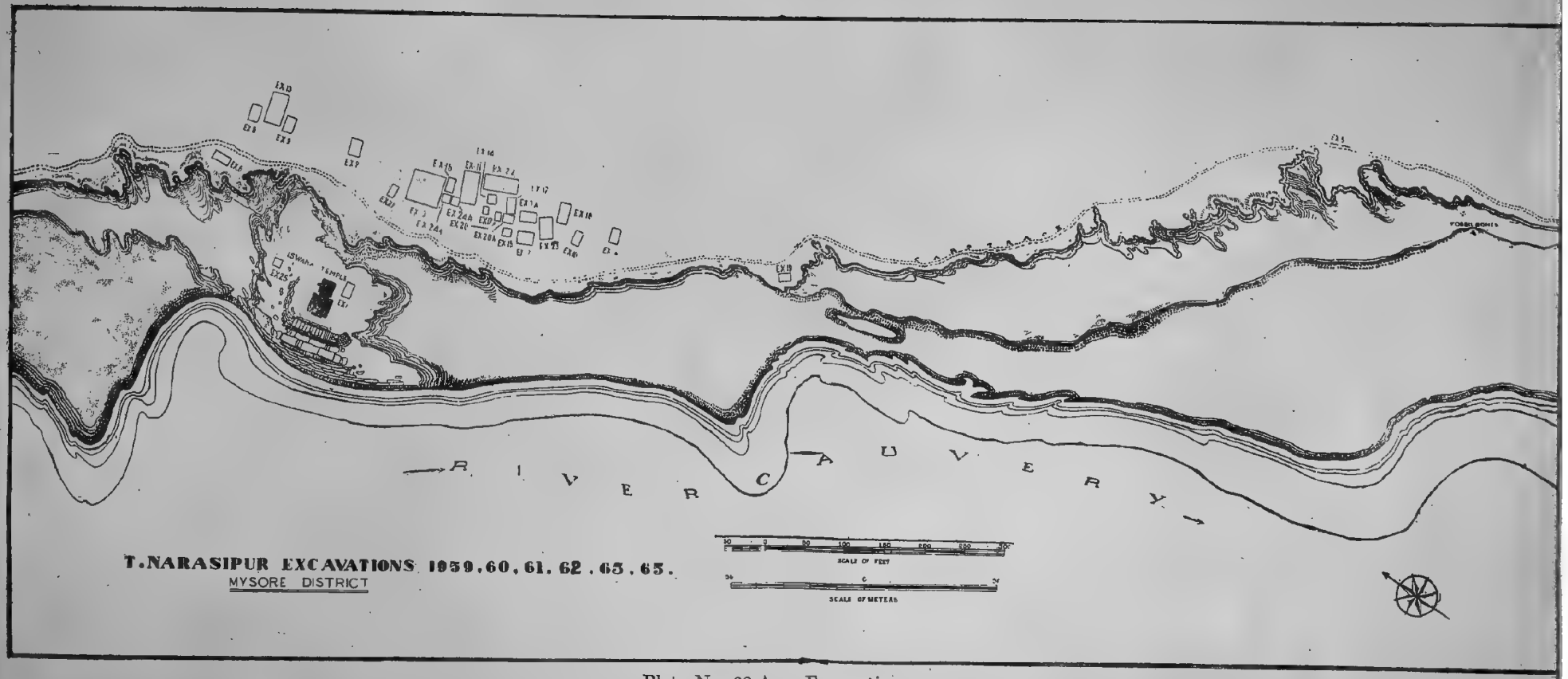

Plate No. 32-A : Excavations.
(Pages 11—18)

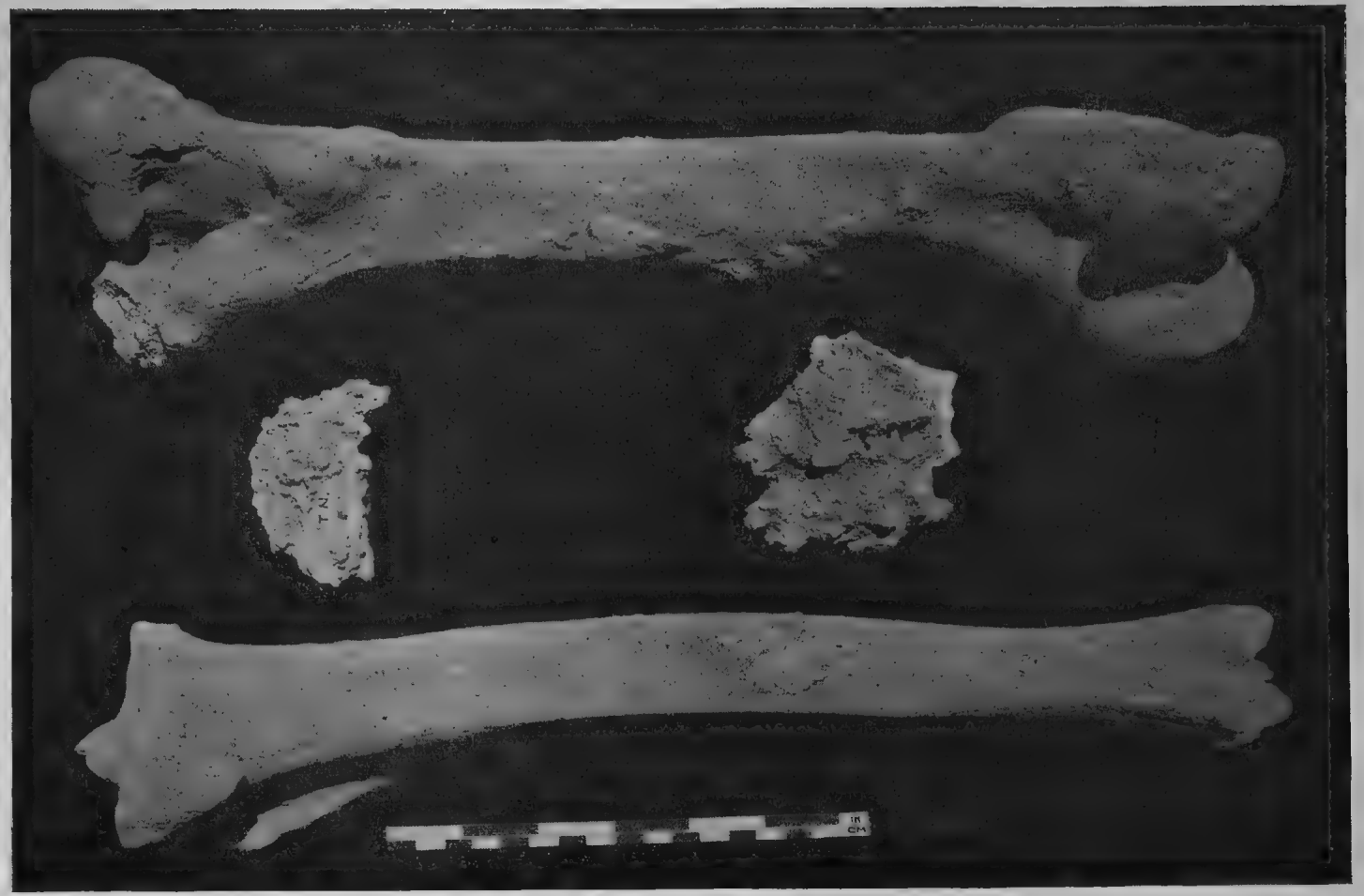

Plate No. 3 : T. Narasipur : Animal Bones (Stray).

Plate No. 4 : T. Narasipur (stray)—Stone Implements

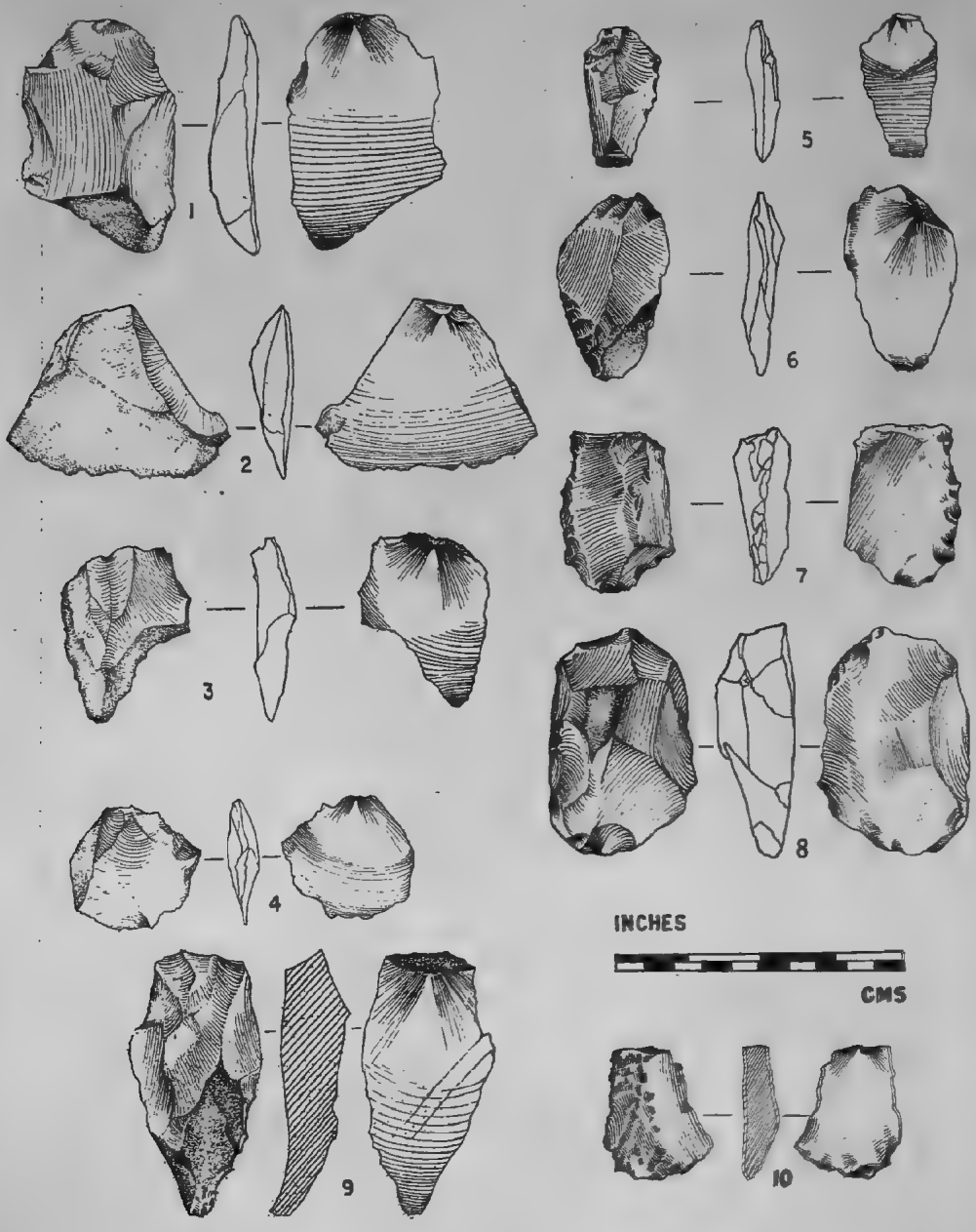

Plate No. 5: Nos. 1—9 stray—worked flakes

No. 10 is a quartz Blade-Flake, found in a pit along with cattle bones sealed by layer (6) T. N. 24-A, Neolithic.

Plate No. 6-A : T. N. Stray—Flaring cup, Neolithic.

Plate No. 6-B : T. N. Stray—Red pottery piece, black-painted, Chalcolithic.

Plate No. 7: T. N. Stray—Channel-spouted pottery pieces.

Plate No. 8: T. No Stray—Channel-spouted pottery pieces

Plate No. 9 : General View of the Mound.

Plate No. 10 : T. N. 22—General View from North.

(Page 15)

Plate No. 11 : T. N. 2—Section.

(Page 11)

Plate No. 12 — T. N. 11—Section with pit, Neolithic.

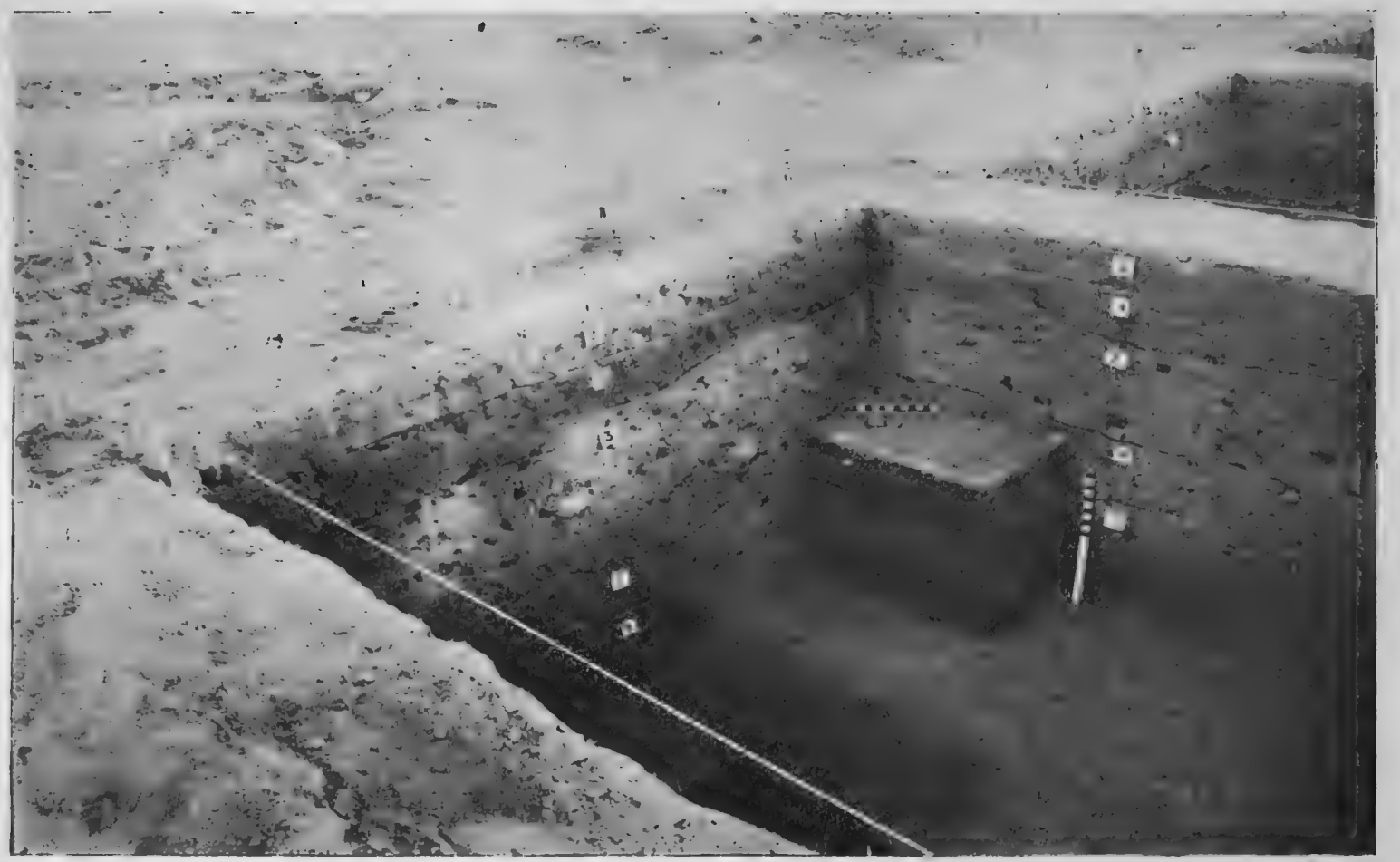

Plate No. 13 : T. N. 11—Section with Neolith.

Plate No.14 : T. N. 22—Section with Neolith, pounders etc

(Page 15)

Plate No. 15 : T. N. 23—Section with Neolith.

(Page 15)

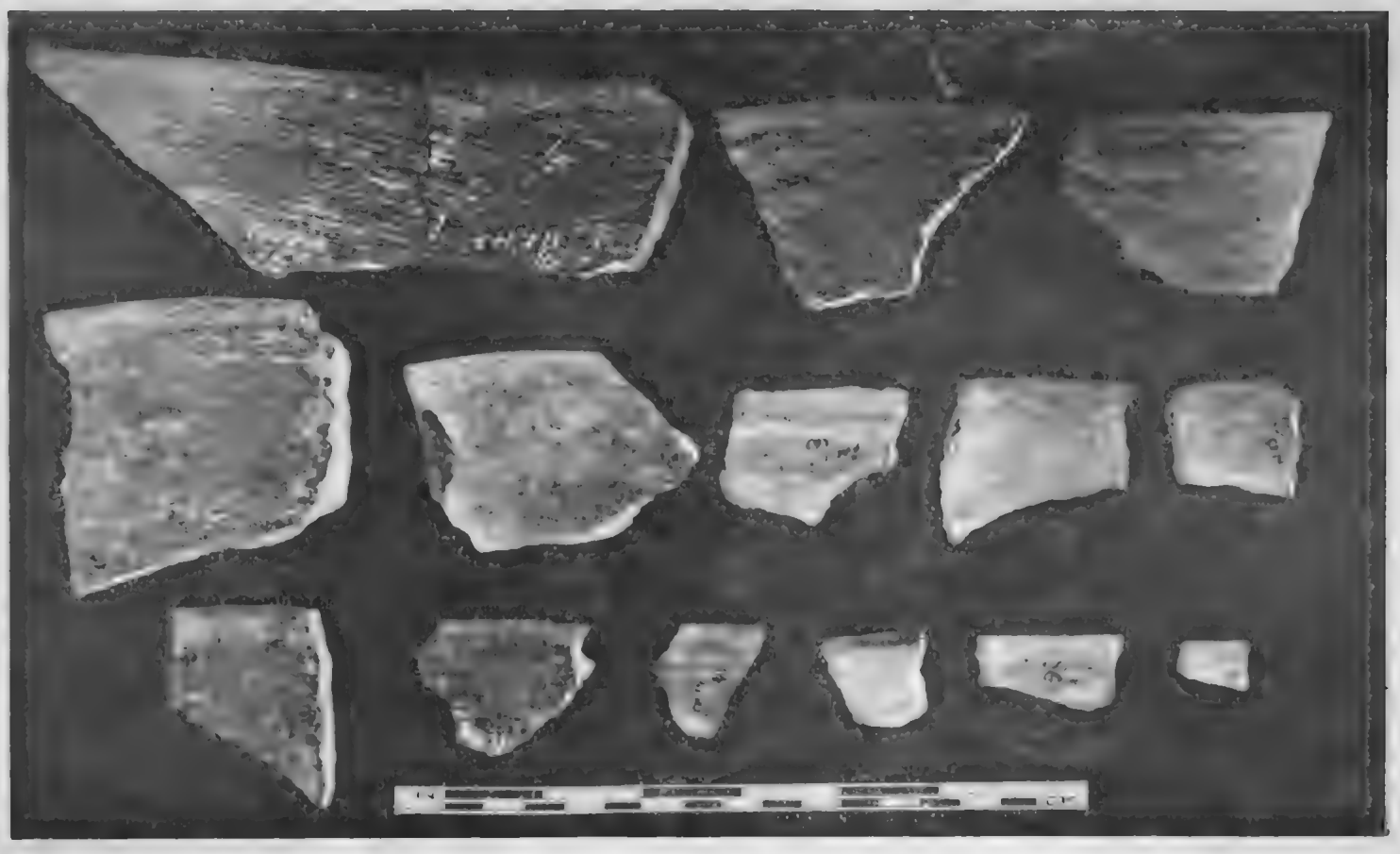

Plate No. 16 : Lip painted Grey-Ware Pottery rim pieces from different trenches like T. N. 7-A, T. N. 15, T. N. 3-C etc.

(Page 13)

Plate No. 17 T.N.—Rim pieces of vases and bowls of burnished grey-ware, Neolithic.

(Pages 30—31)

Plate No. 18 : T. N.—7-A, pottery rim pieces— burnished grey.

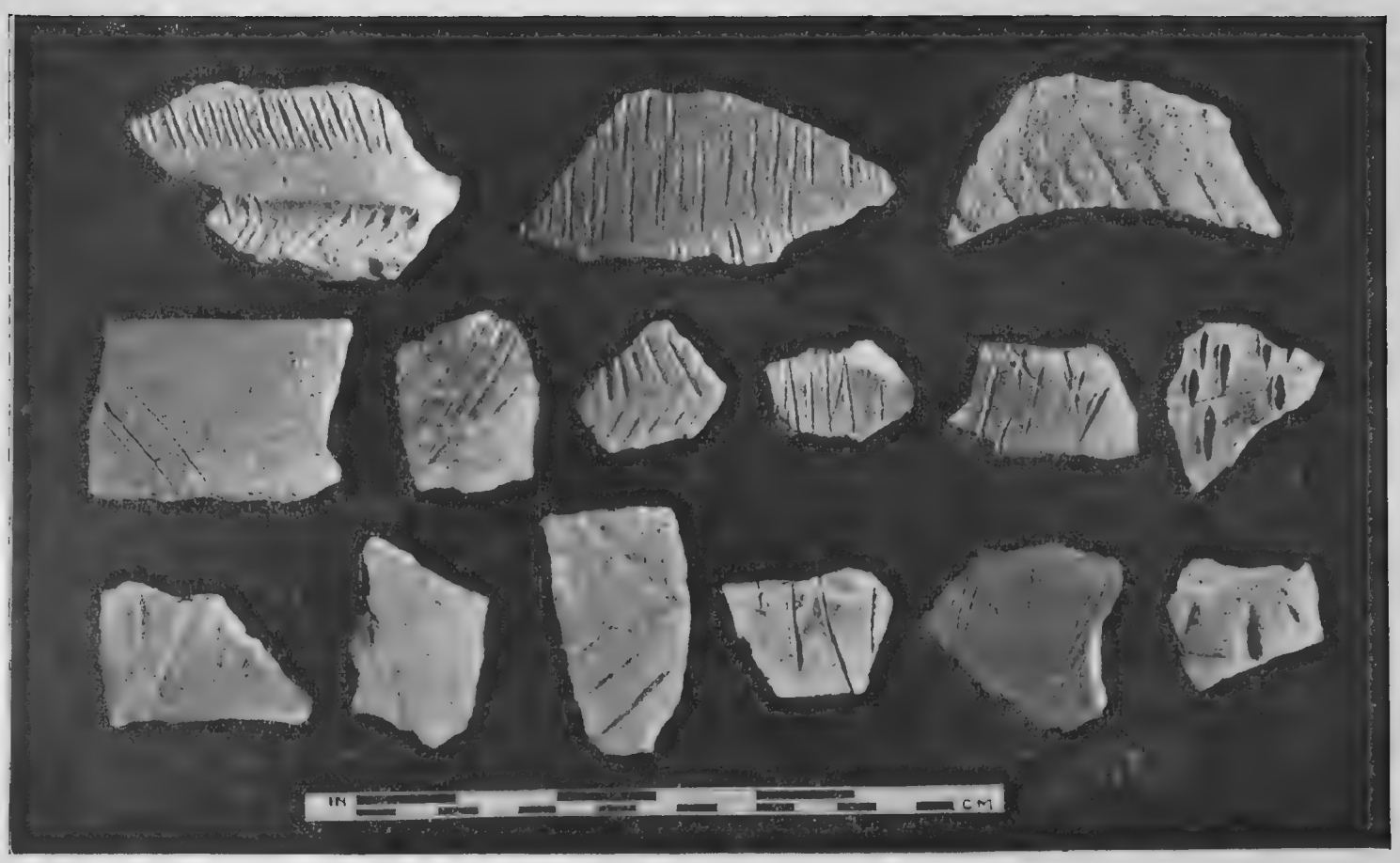

Plate No. 19 : T. N.—Incised pottery pieces, Neolithic burnished grey.
(Pages 32—33)

Plate No. 20-A : Incised pottery pieces, Neolithic (burnished grey).

Plate No. 20-B : Incised pottery pieces, Neolithic (burnished grey).

Plate No. 21: T. N. 24-A—Section showing the animal bones in the pit. Notice the flake of quartz: Neolithic.

(Page 18)

Plate No. 22: T. N. 24-A—Pit with animal bones and flake of quartz, Neolithic.

Plate No 23 : T. N. 24-A—Close-up view of the pit

(See Appendix IInd Page 77)

Plate No. 24 : T. N. 24-A—Section with Charcoal.

(Page 106)

T.N. 24 A 1965

SECTION LOOKING SOUTH

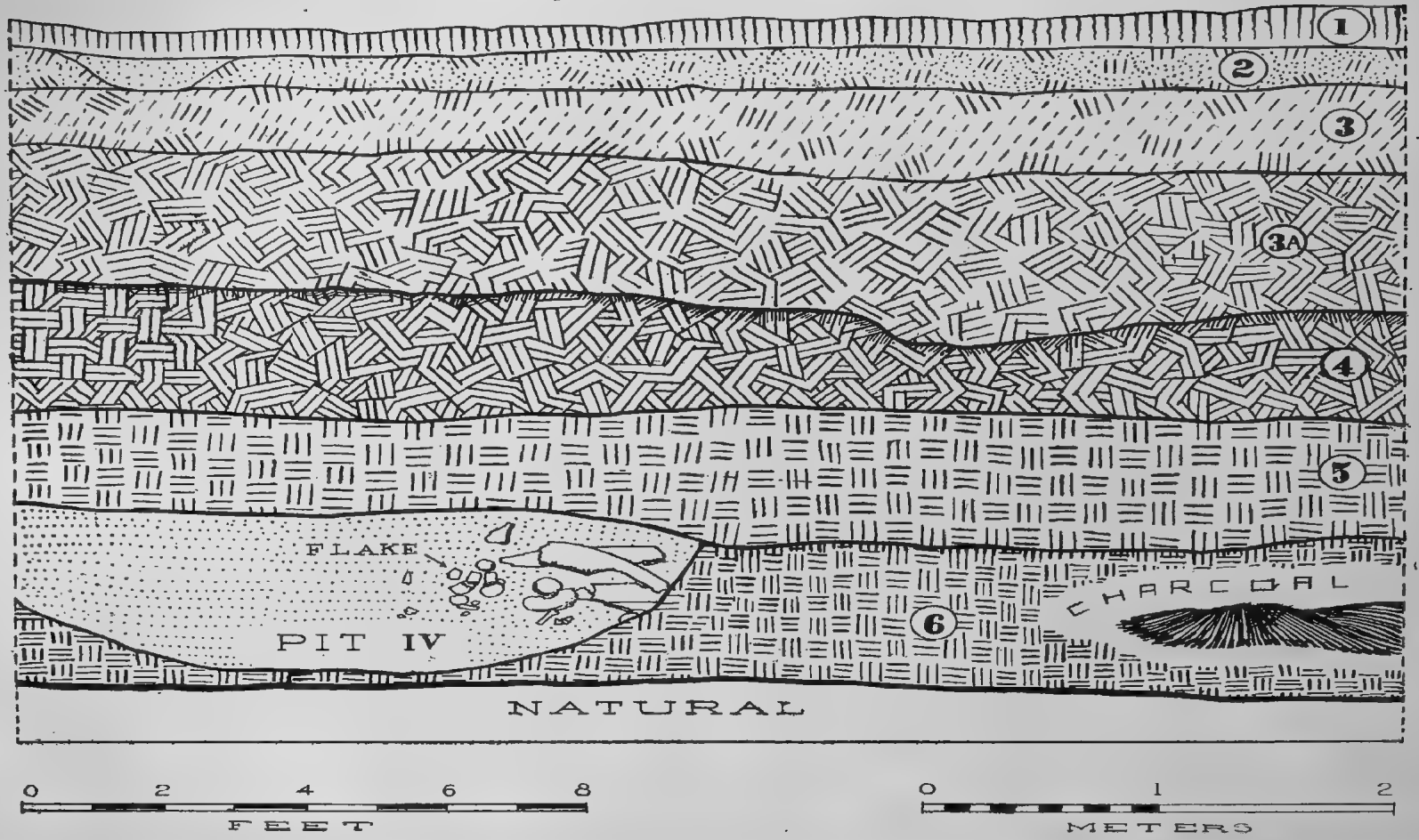

Plate No. 25 : Section looking South.

Plate No. 26 T. N. Pecked and ground stone industry—Neolithic Axes and Chisel (only one chisel was found during the Excavations)

Plate No. 27 : Pecked and ground stone industry—Neolithic Axes.

(Pages 59—63)

Plate No 28 T N Pecked and ground stone industry—Neolithic Axes

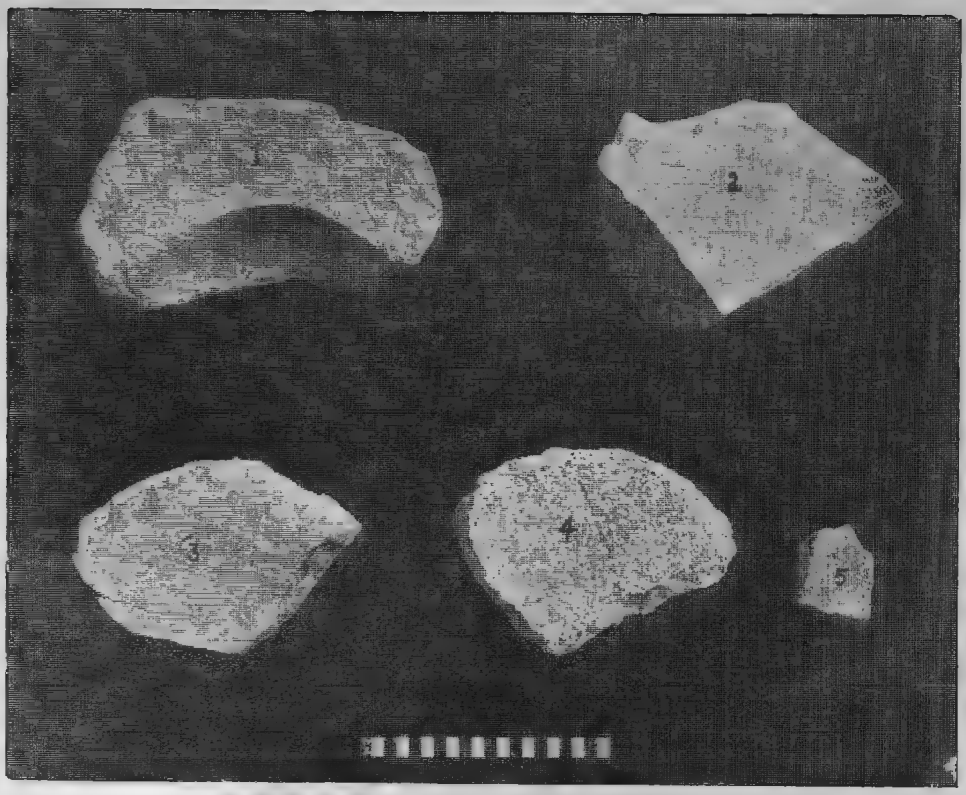

Plate No. 29 : Querns (mealing troughs) .

(Page 67)

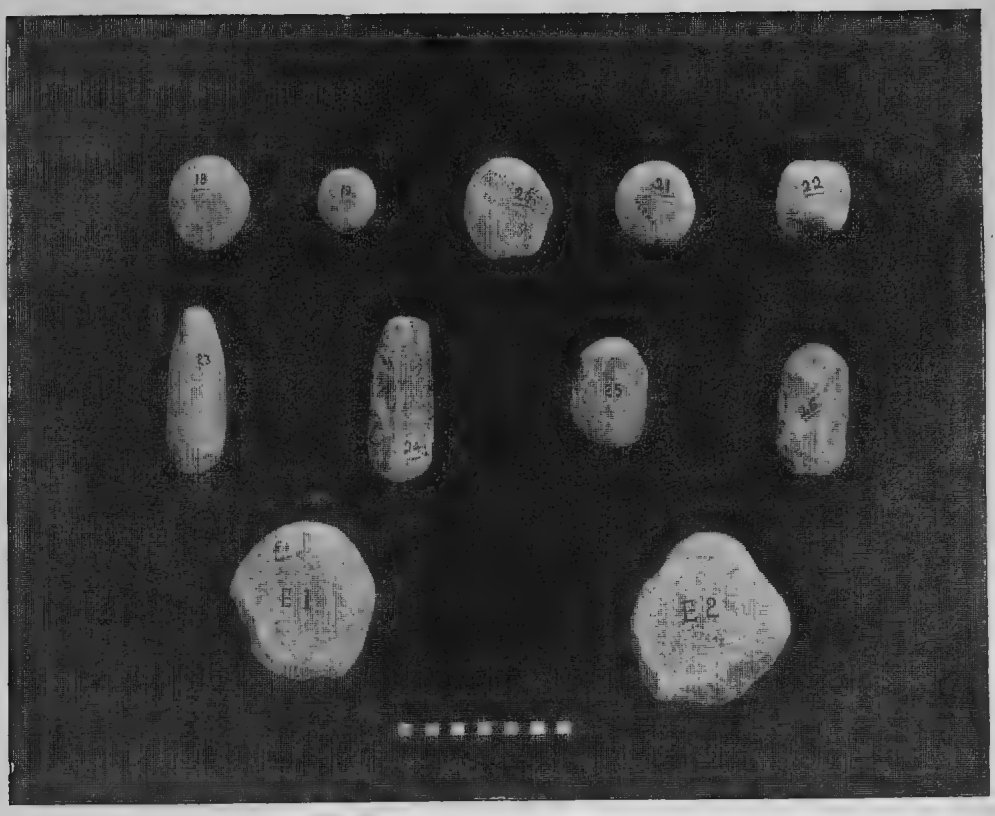

Plate No. 30-A : Pounders from T. Nárasipur site.

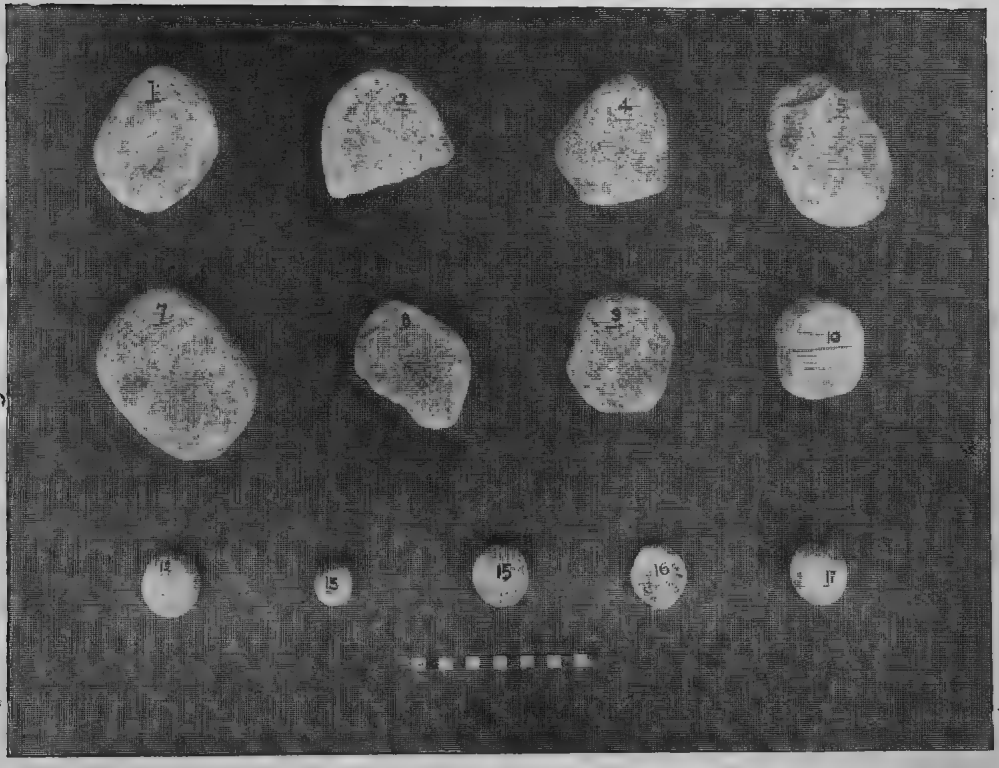

Plate No. 30-B : Rubbers and pounders from excavations.

Plate No. 31 : T. N. 16—Burial (Skeleton), Neosithic.

(Pages 19—21)

T N - 16, 1962
SECTION LOOKING NORTH

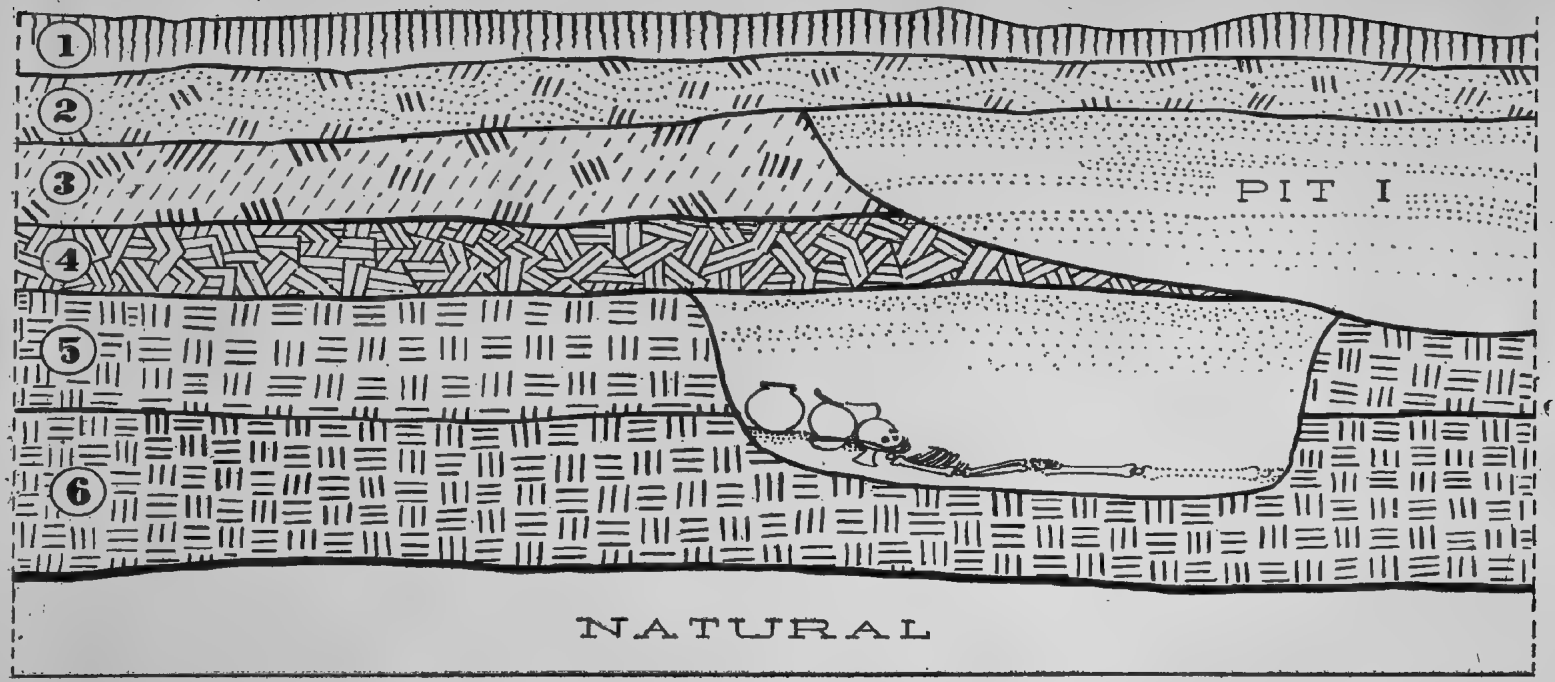

Plate No. 32 : T. N. 16, 1962—Section looking North.

Plate No. 33 : T. N. 16—Burial pottery : neck-rest and spouted bowl.

(Pages 20—21)

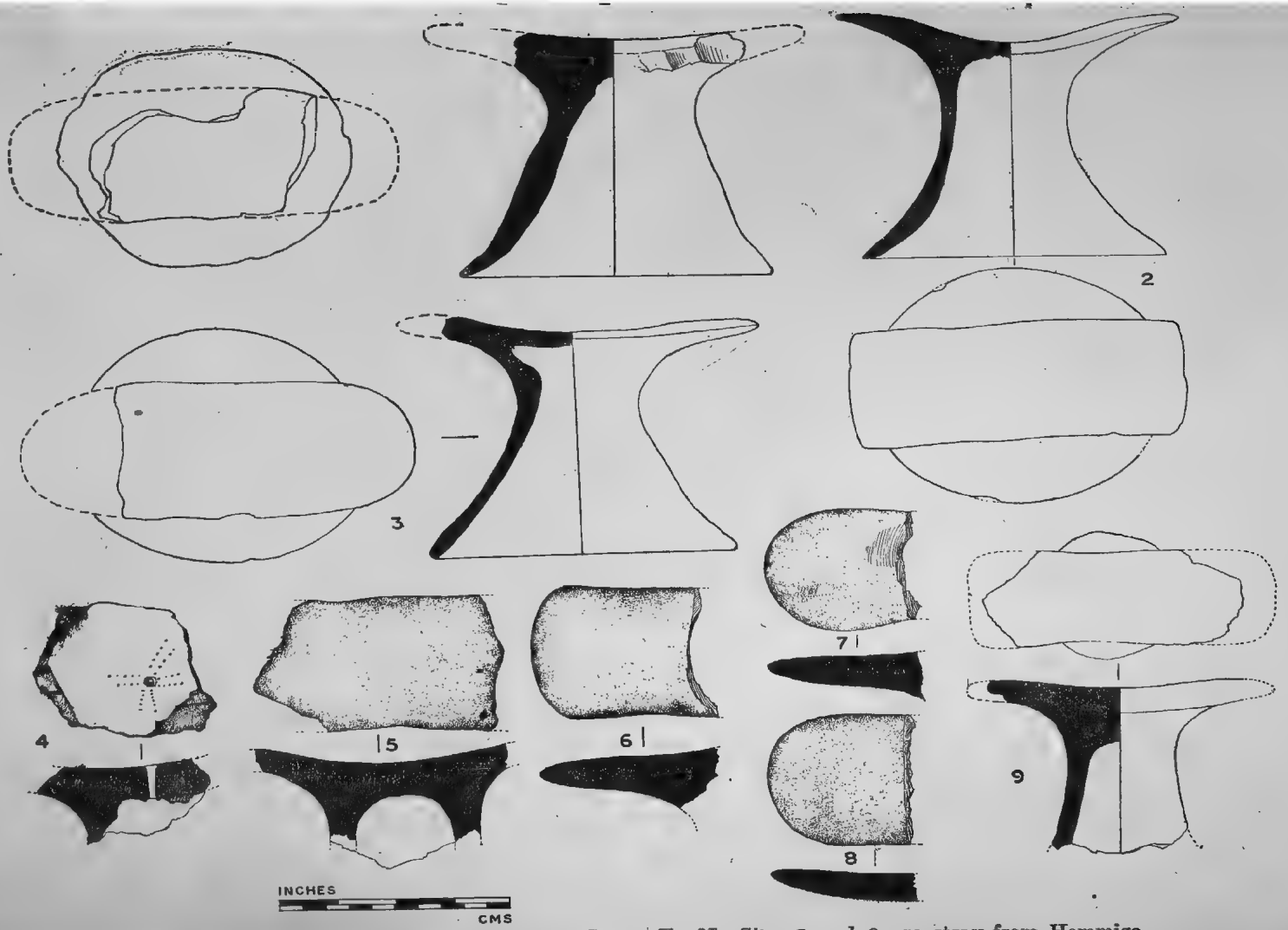

Plate No. 34: Neck-rests-Neolithic: 1 Stray, T. N. Site, 3 and 9 are stray from Hemmige.

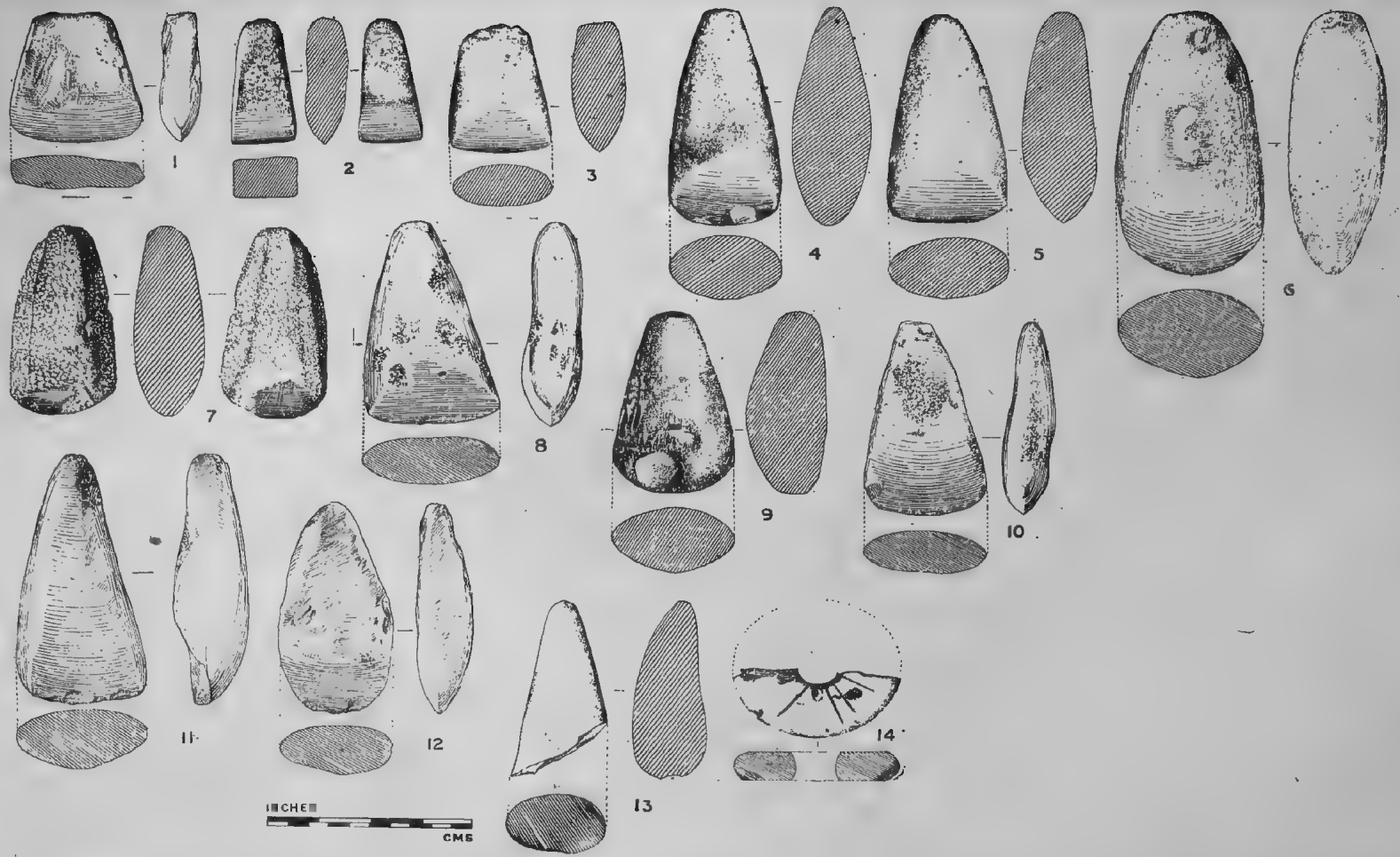

Plate No. 35 : Polished stone axes from T. Narasipur site.

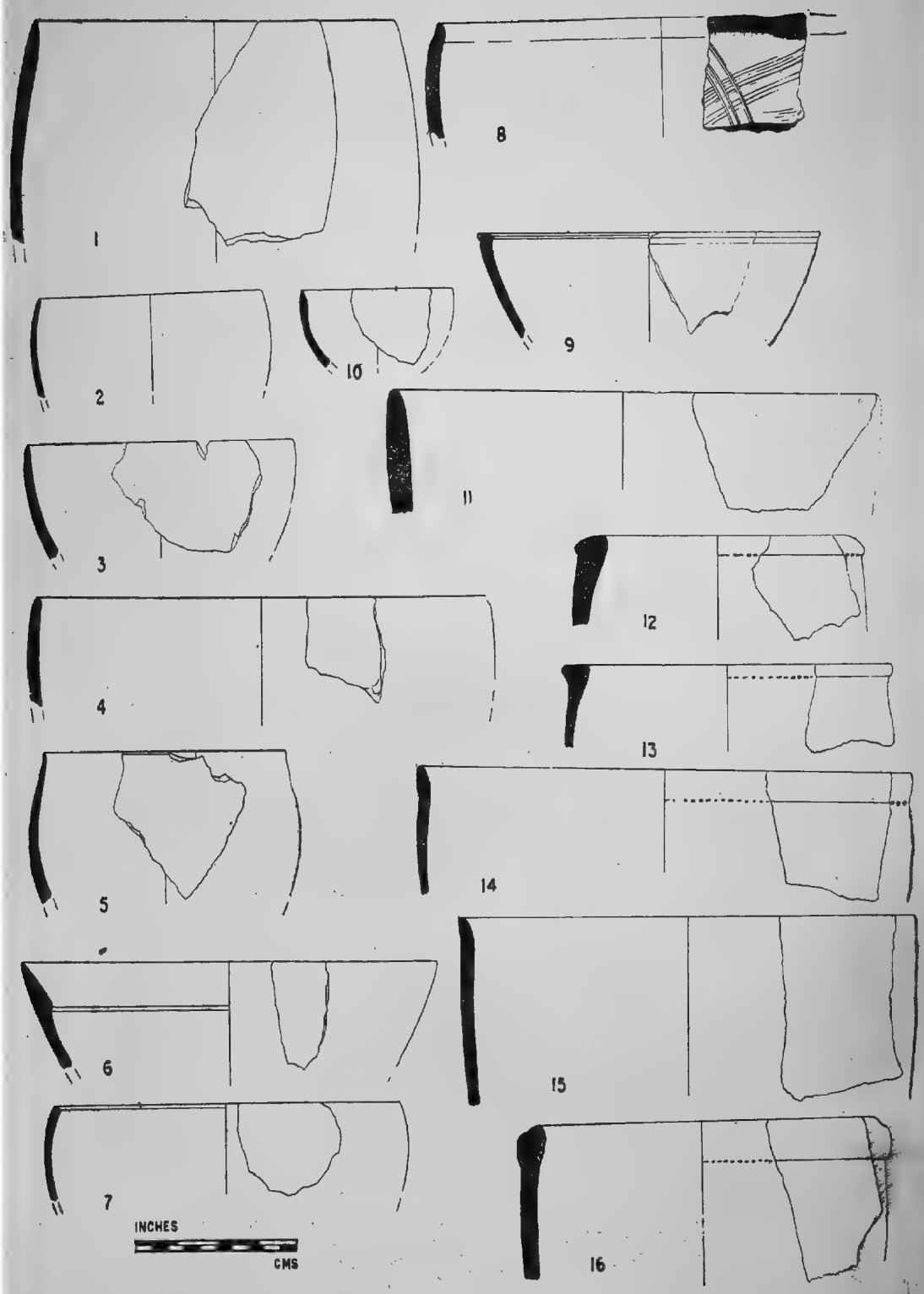

Plate No. 36: Potsherds—1-7 layer (6), 7-10 layer (5), 11, 13, 14, 15 layer (4).

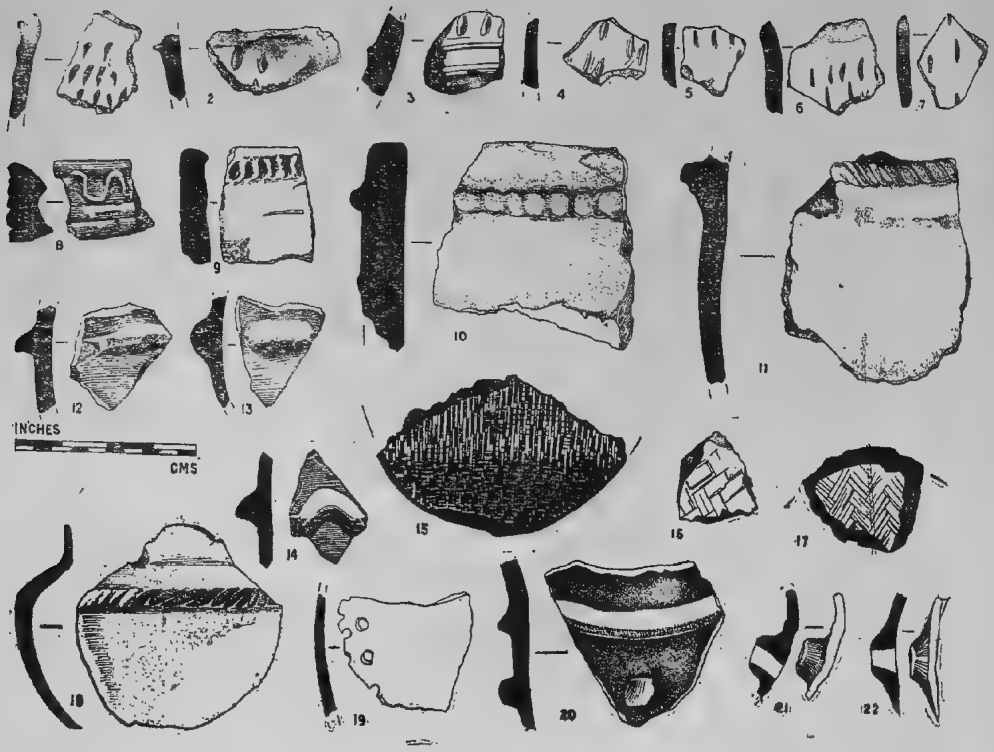

Plate No. 37: Pottery—15, 16, 17 have matted designs.
16 and 17 are from sayer (5), while 15 is stray.

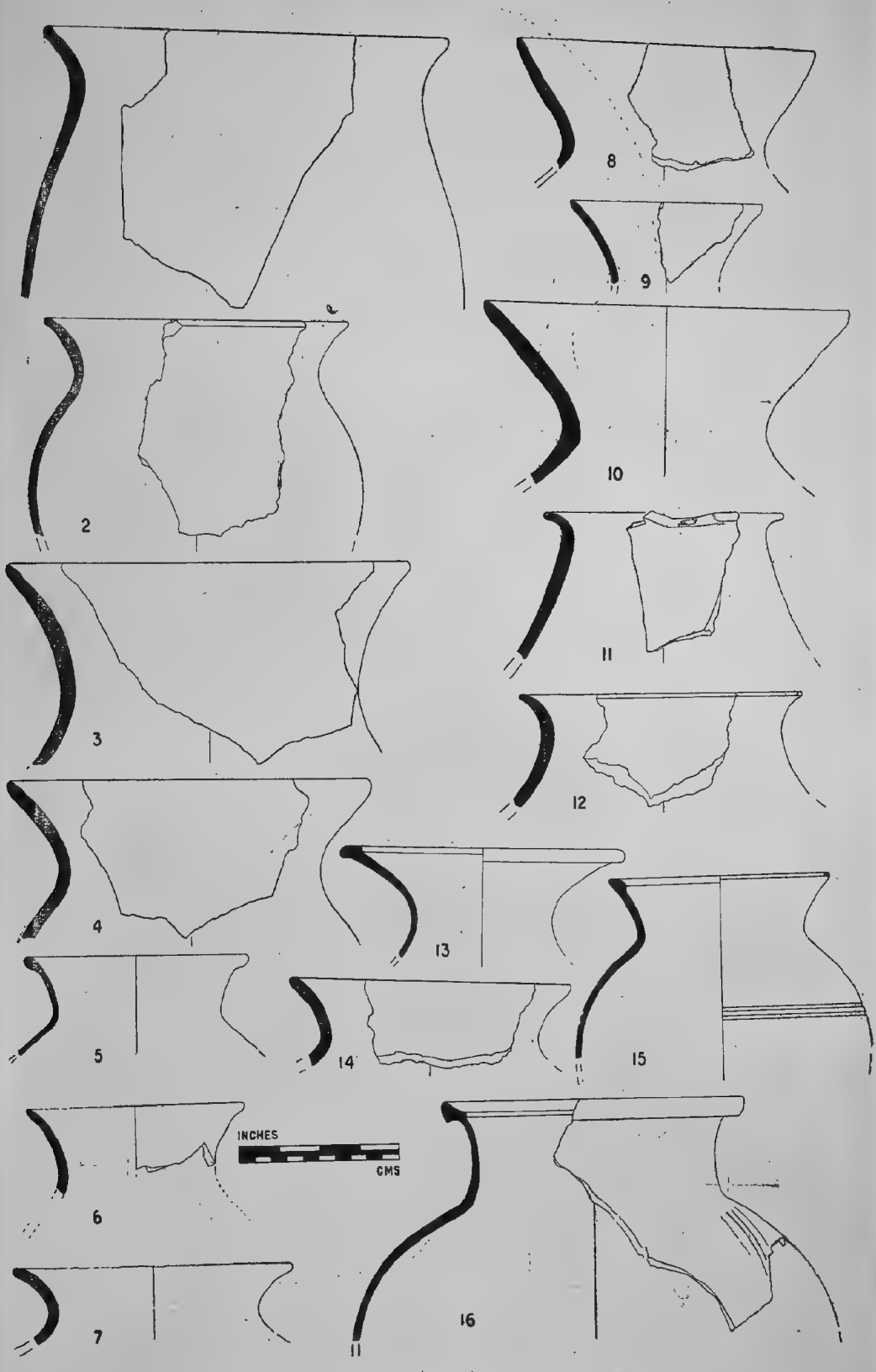

Plate No. 38: Potsherds—Layers (4), (5) and (6).

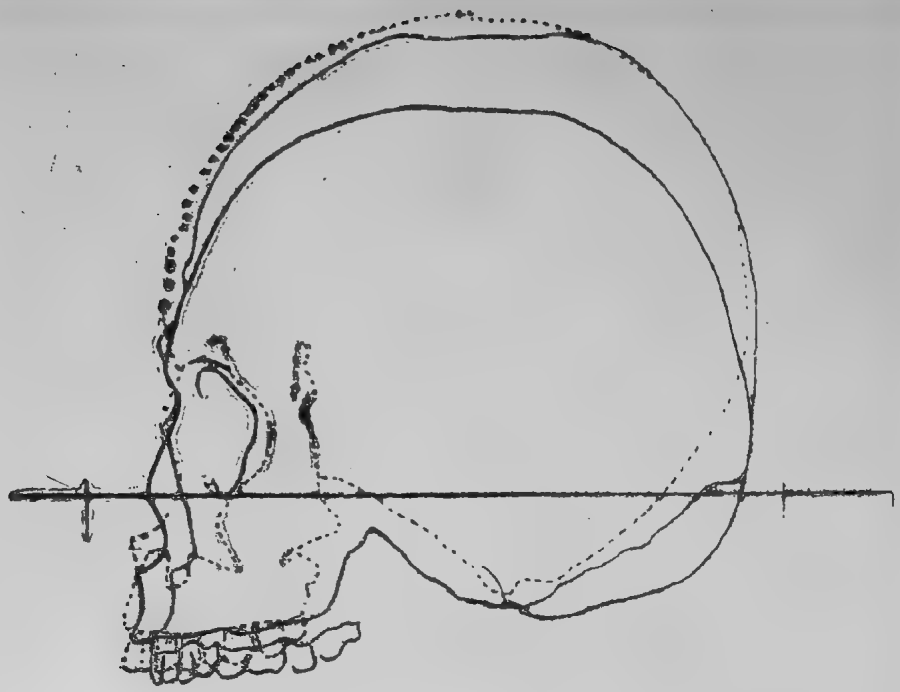

Plate No. 39-A : Superimposition of sagittal contours—T. Narasipur specimen.....
Piklihal Male ;—
Piklihal Female ———

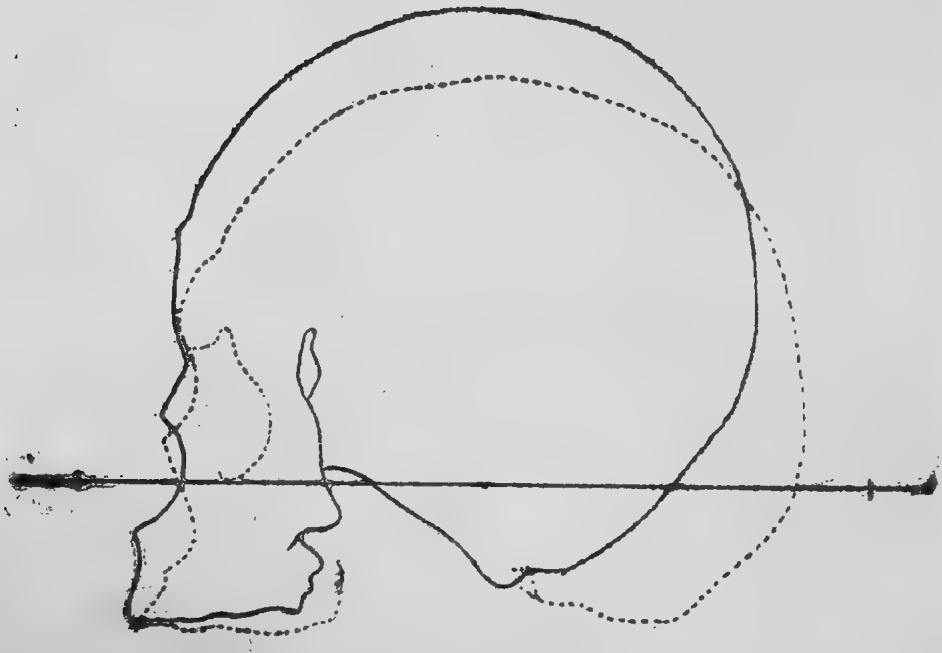

Plate No. 39-B : Superimposition of Sagittal
Countours :—T. Narasipur specimen———
Tekkalkota specimen, No. 5, Male .....

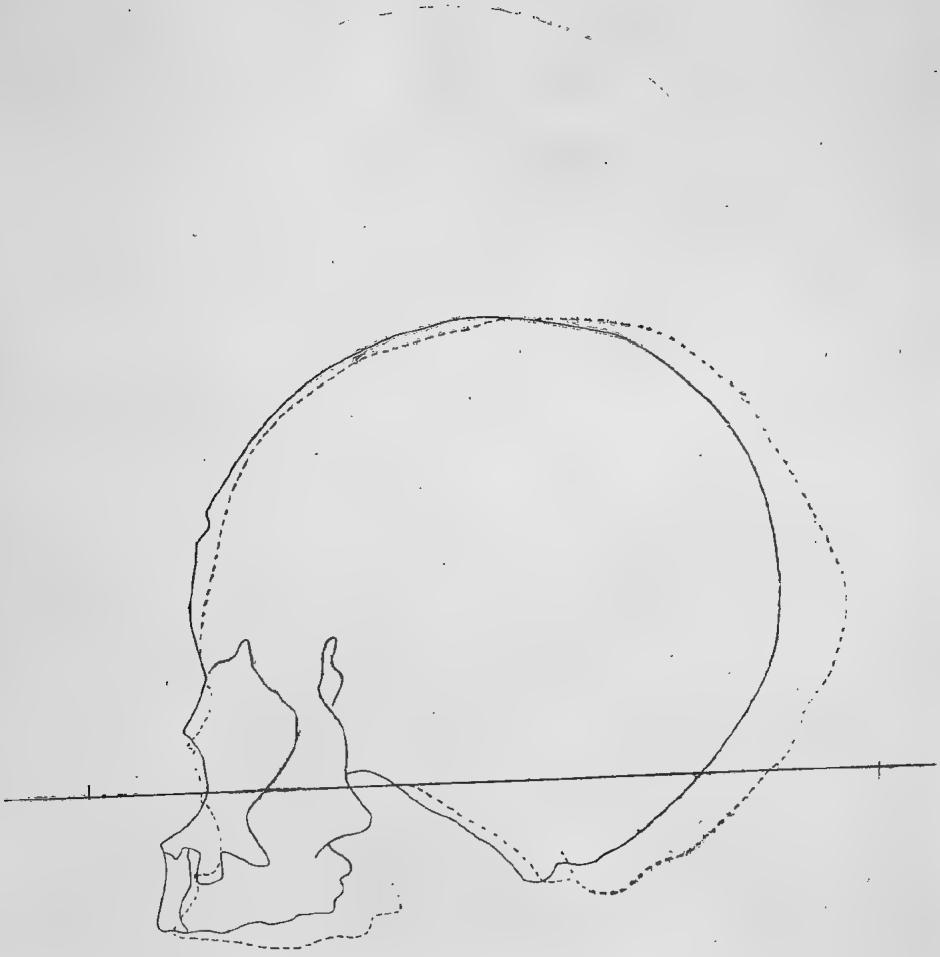

Plate No. 40 : Superimposition of Sagittal contours—T. Narasipur specimen--Tekkalakota specimen, No. 2. Female ....

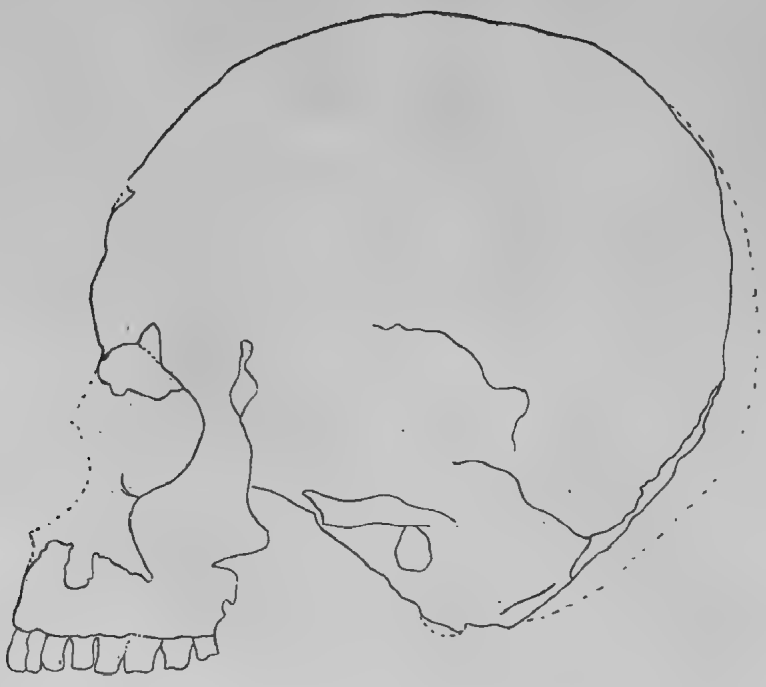

Plate No. 41-A : Cranium—Norma Lateralis.
(T. Narasipur female skull)

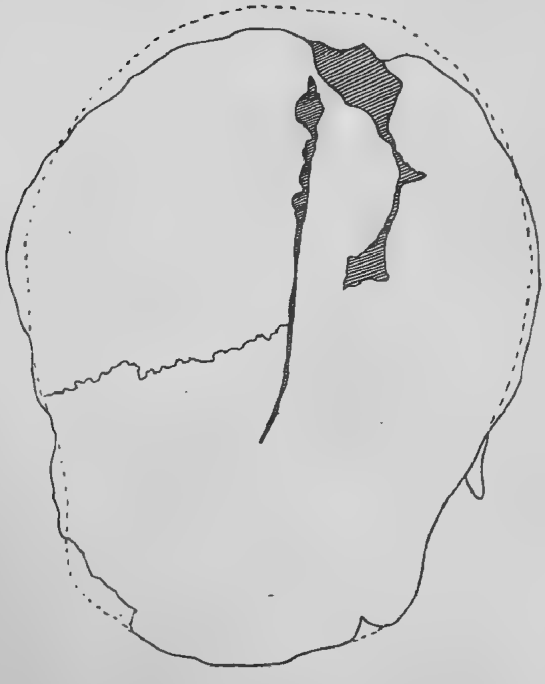

Plate No. 41-B : Cranium—Norma Verticalis.

Plate No. 42-A : Cranium—Normal Occipitalis.

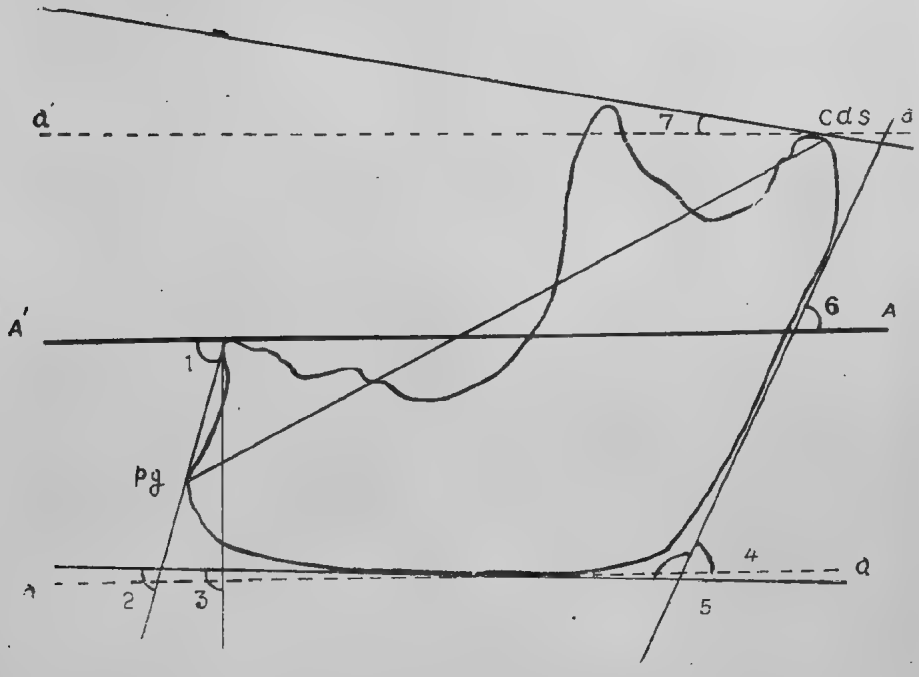

Plate No. 42-B : Mandibular outline in Orthogonal Lateral Projeccion, showing the scheme of Angles in the Gnathogram and to show the different Corpus—Ramus slant as indicated by the Pogonion (PG)—Condylion Superius (CDS) Diameter.

Plate No. 43: Mandible—Vertical aspect.

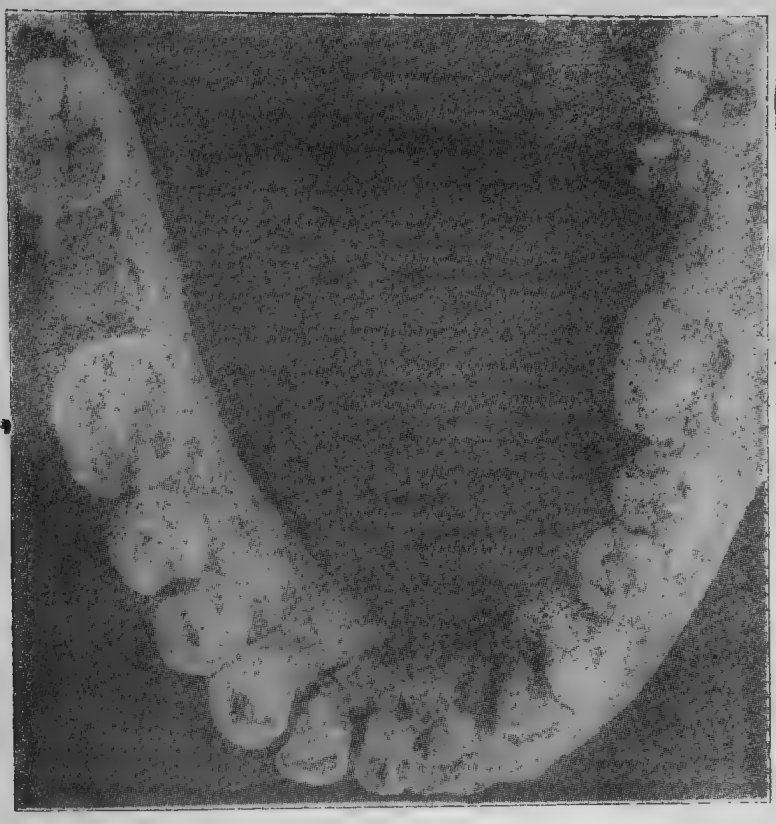

Plate No. 44-A : Mandibular Dentition.

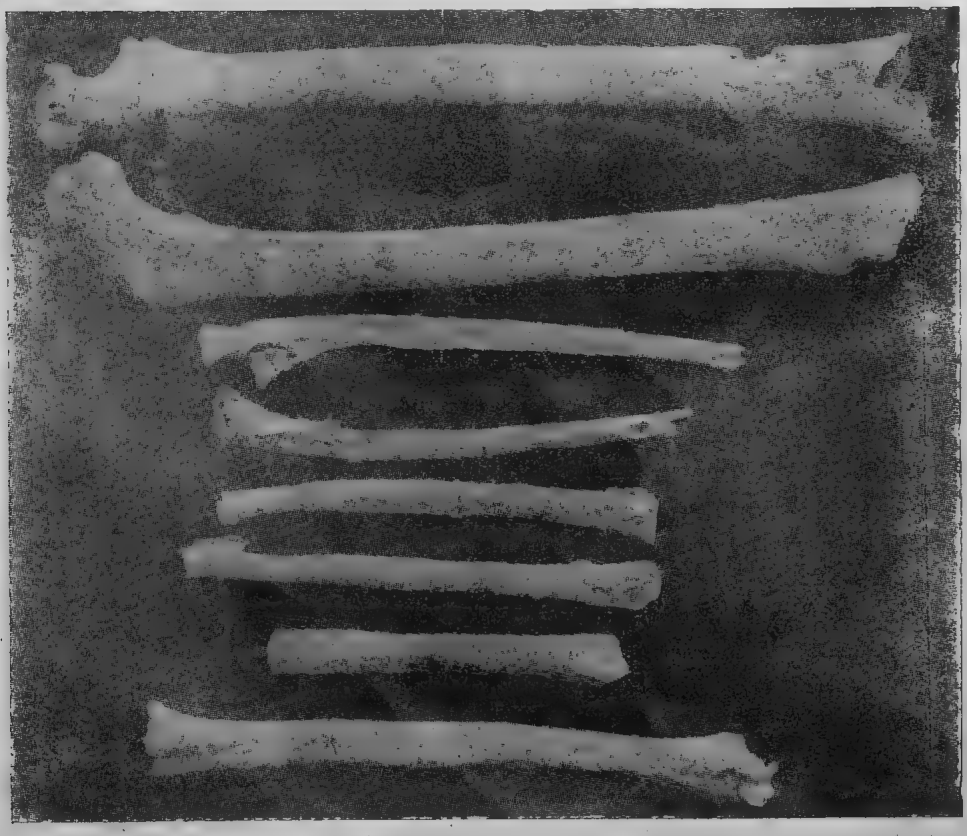

Plate No. 44-B : Bones of the Extremities.

Plate No. 45-A : Cranium—Norma Frontalis.

Plate No. 45-B : Cranium—Norma Basilaris.

Plate No. 46-A : Norma Lateralis.

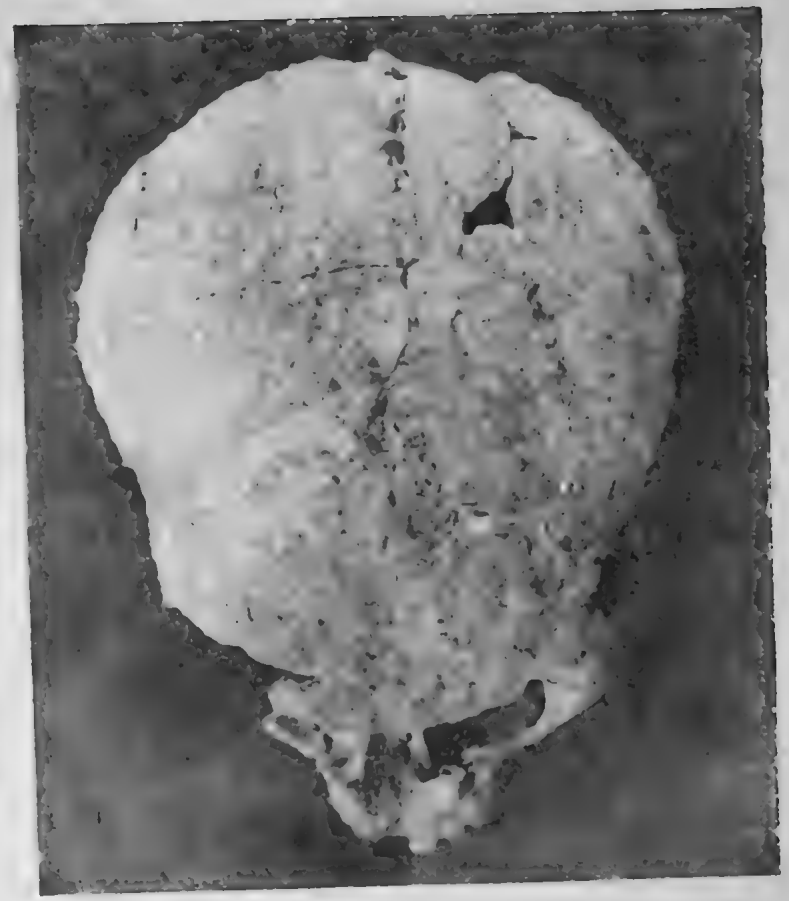

Plate No. 46-B : Cranium—Norma Verticalis.

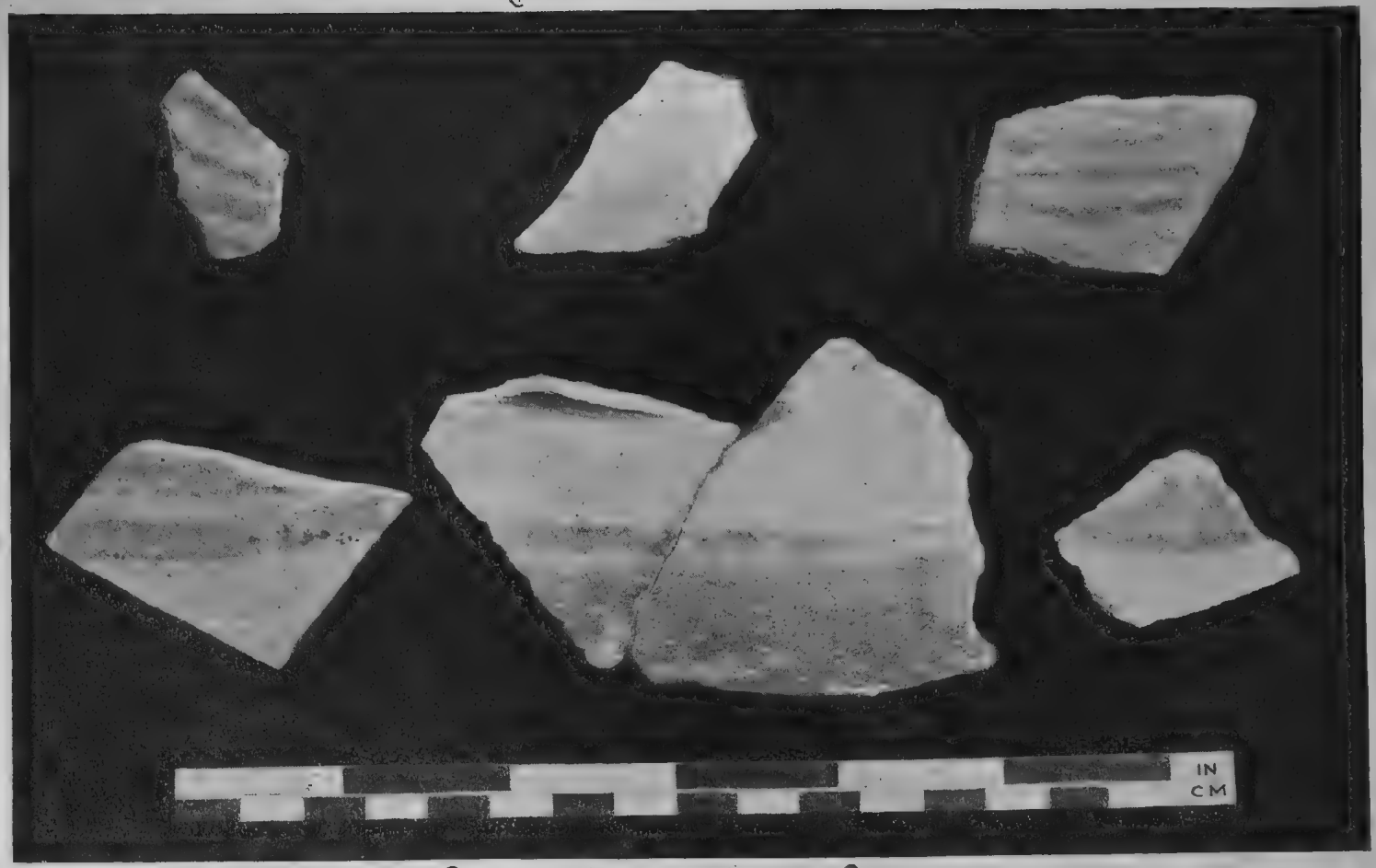

Plate No. 47 : T. N. Painted pottery—Painted black or-red- Chalcolithic.
(Page 41)

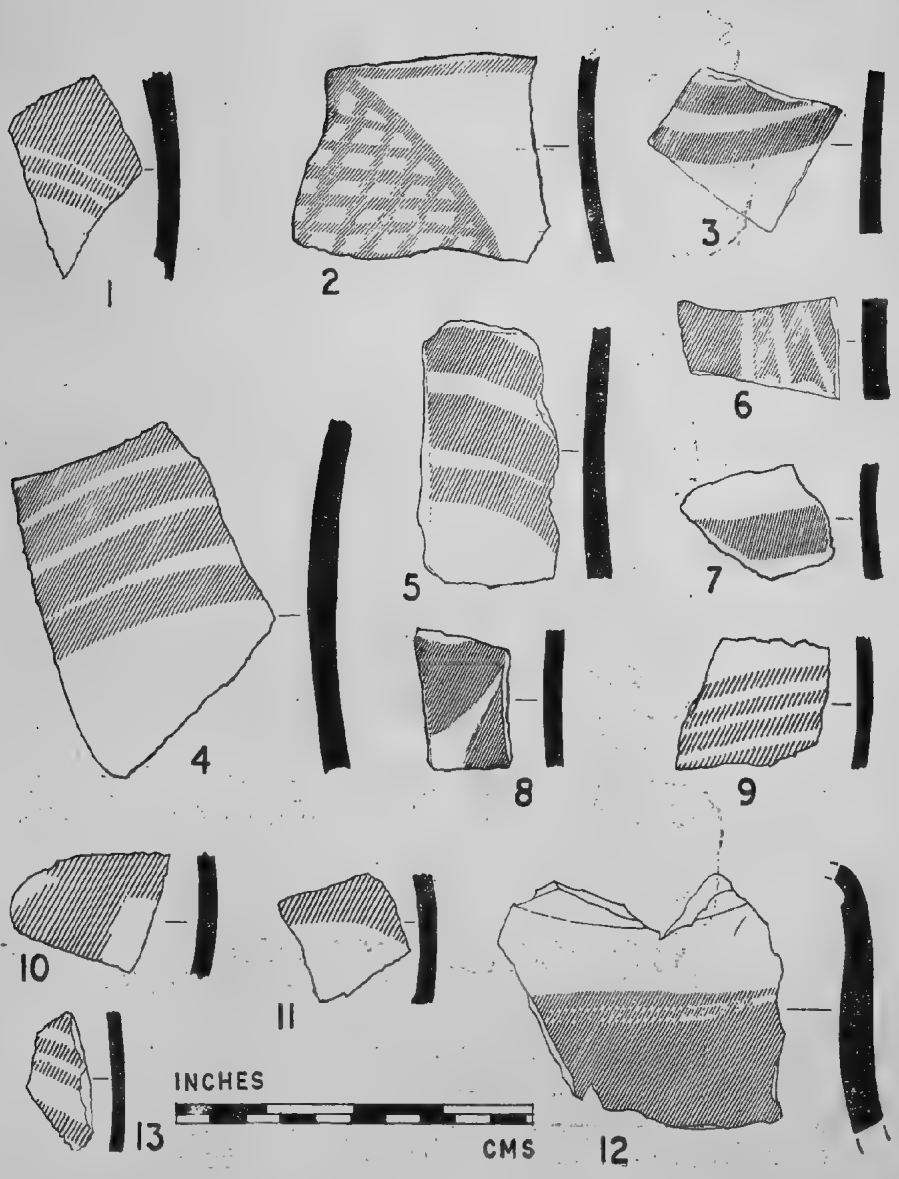

Plate No. 48: Chalcolithic pottery—T. Narasipur site—Black-on-red.

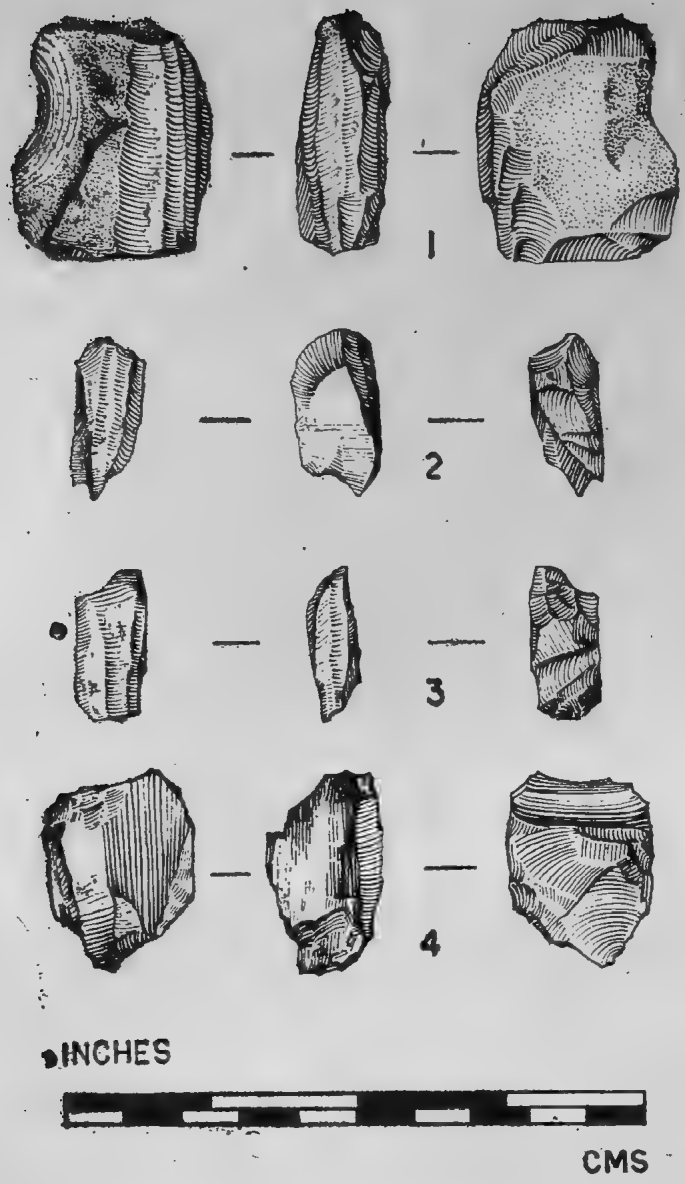

Plate No. 49 : Fluted Cores, Chalcolithic, from T. Narasipur excavations.

(Page 57)

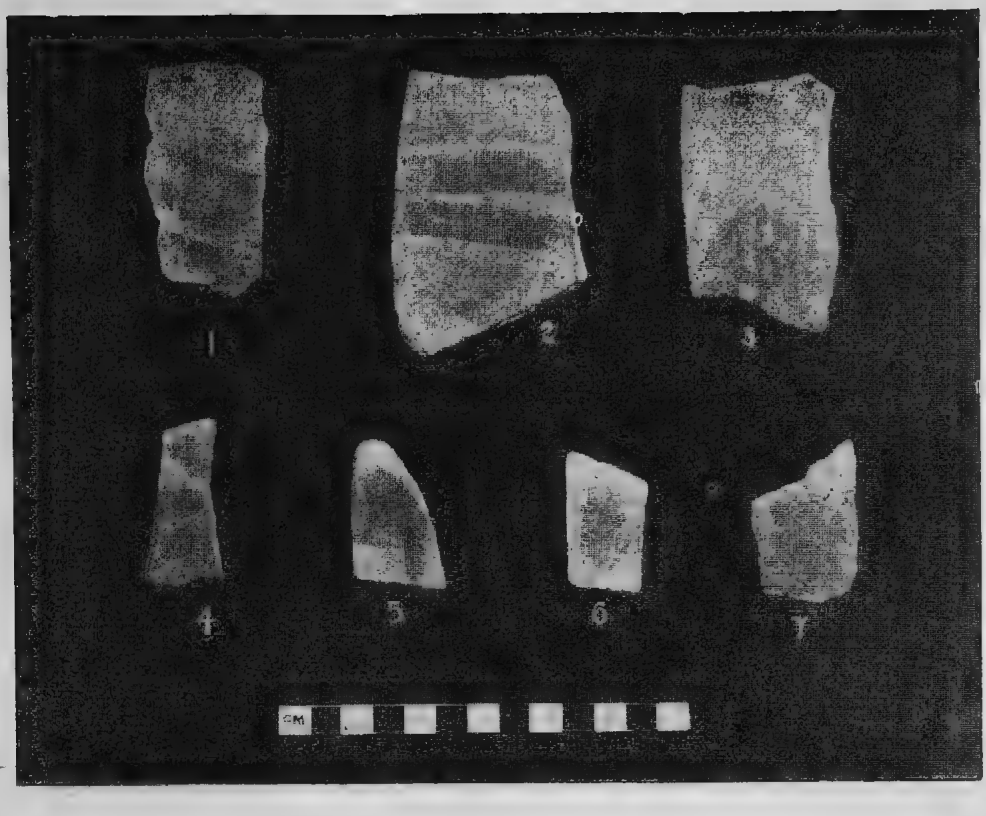

Plate No. 50-A : Block-on-red pottery, Chalcolithic, T. Narasipur site.

Plate No. 50-B : Channel-spouted Bowls from Hemmige, Chalcolithic.

(Page 25)

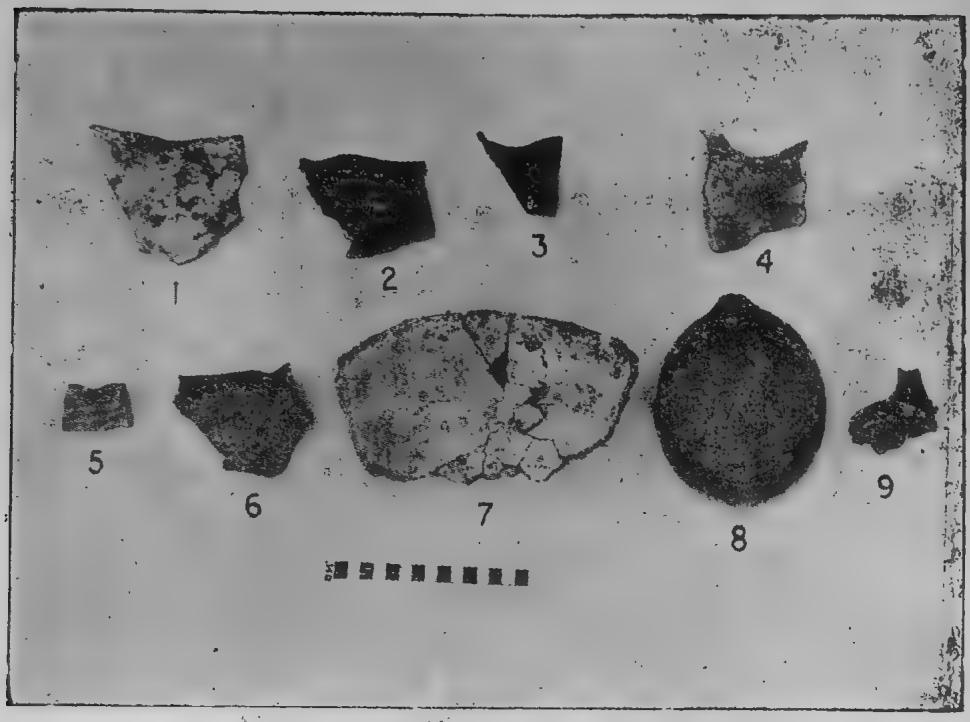

Plate No. 51-A : Pinched Pottery—Chalcolithic.

(Page 25)

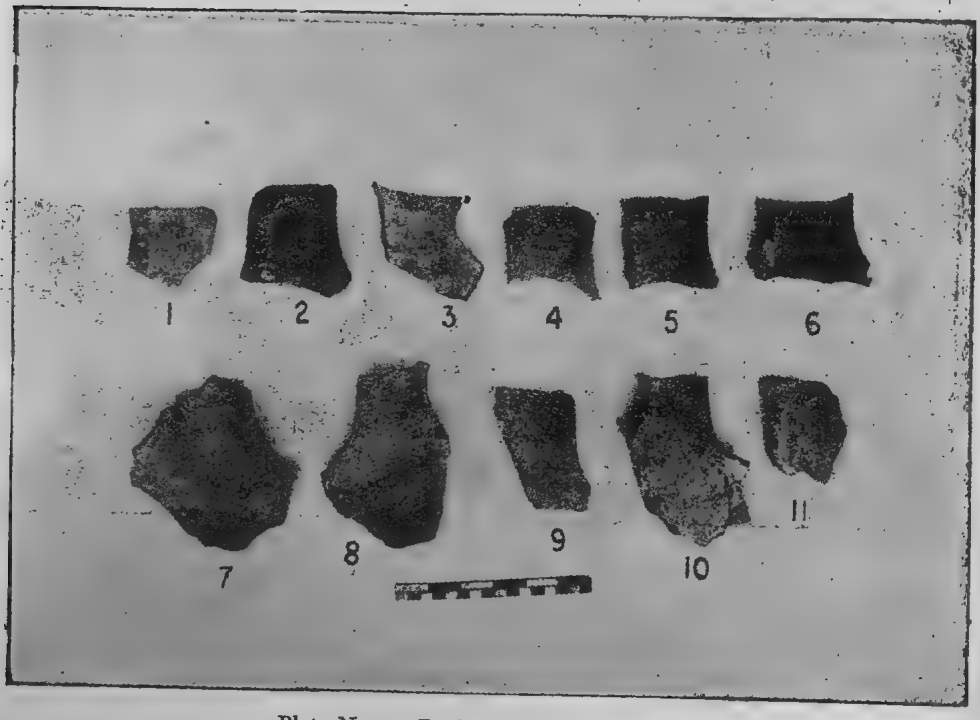

Plate No. 51-B : Channel-spouted pieces.

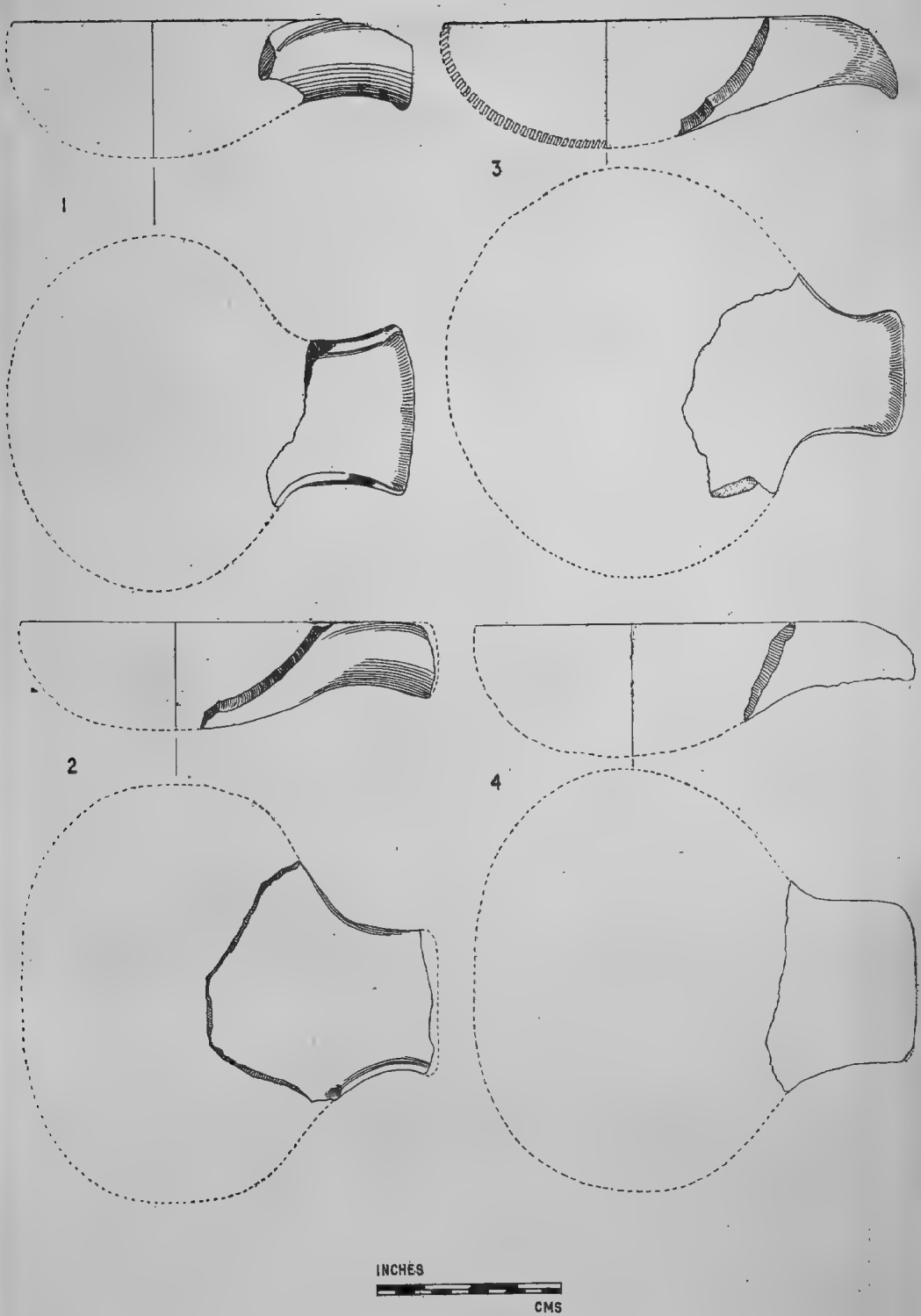

Plate No. 52: Channel-spouted potsherds—Chalcolithic; No. 2 belonge to layer 2, may be Megalithic.

Plate No. 53: T.N. 3—Section and plan of the pit showing pottery pieces and Bones: Megalithic
(Page 28)

Plate No. 54: T. N. 3—Section.

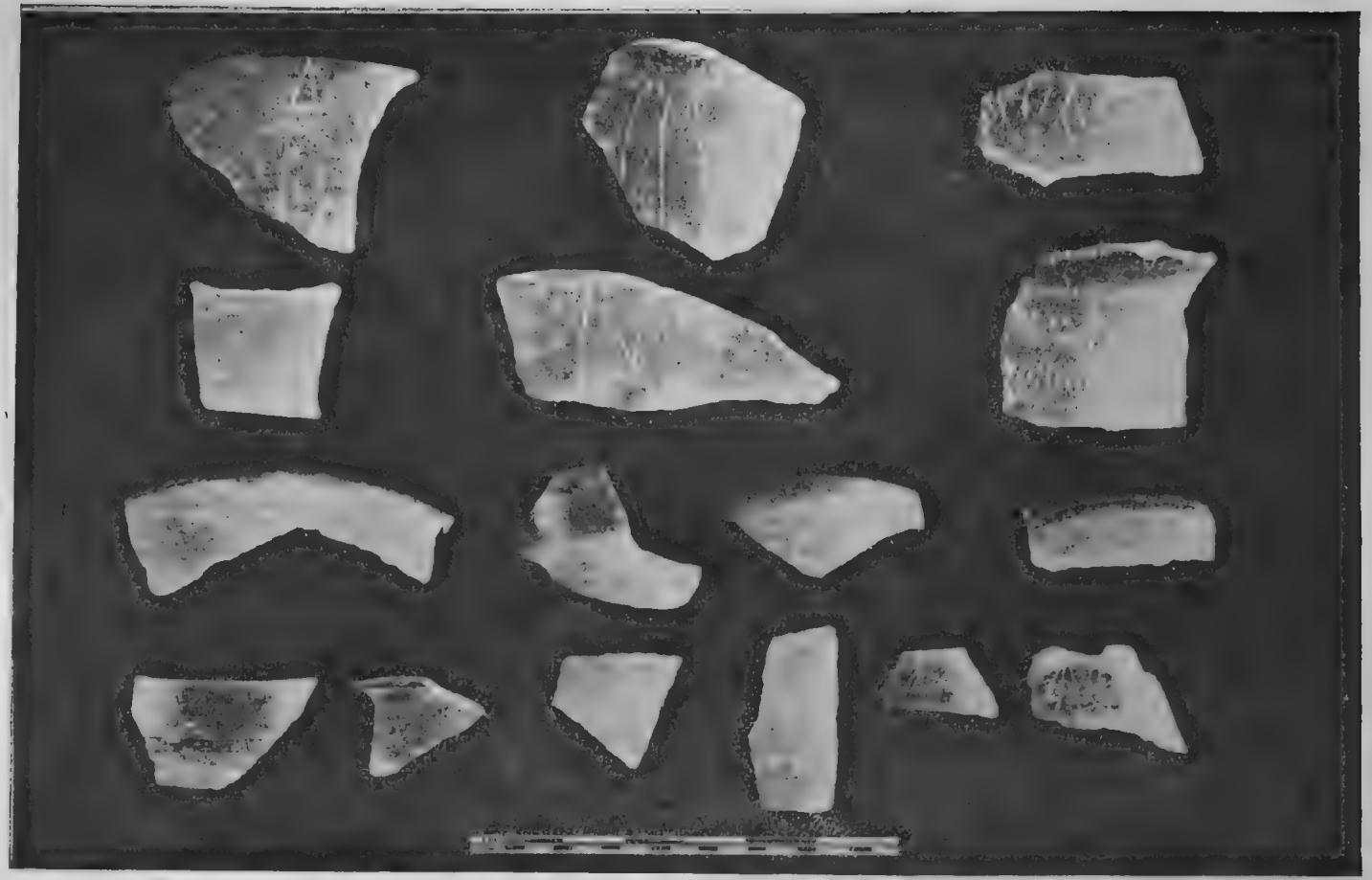

Plate No. 55.: T. N. Megalithic black-and-red ware pottery pieces with graffiti, some of them bear ripple marks on their body as a back ground and the graffiti occur over them.

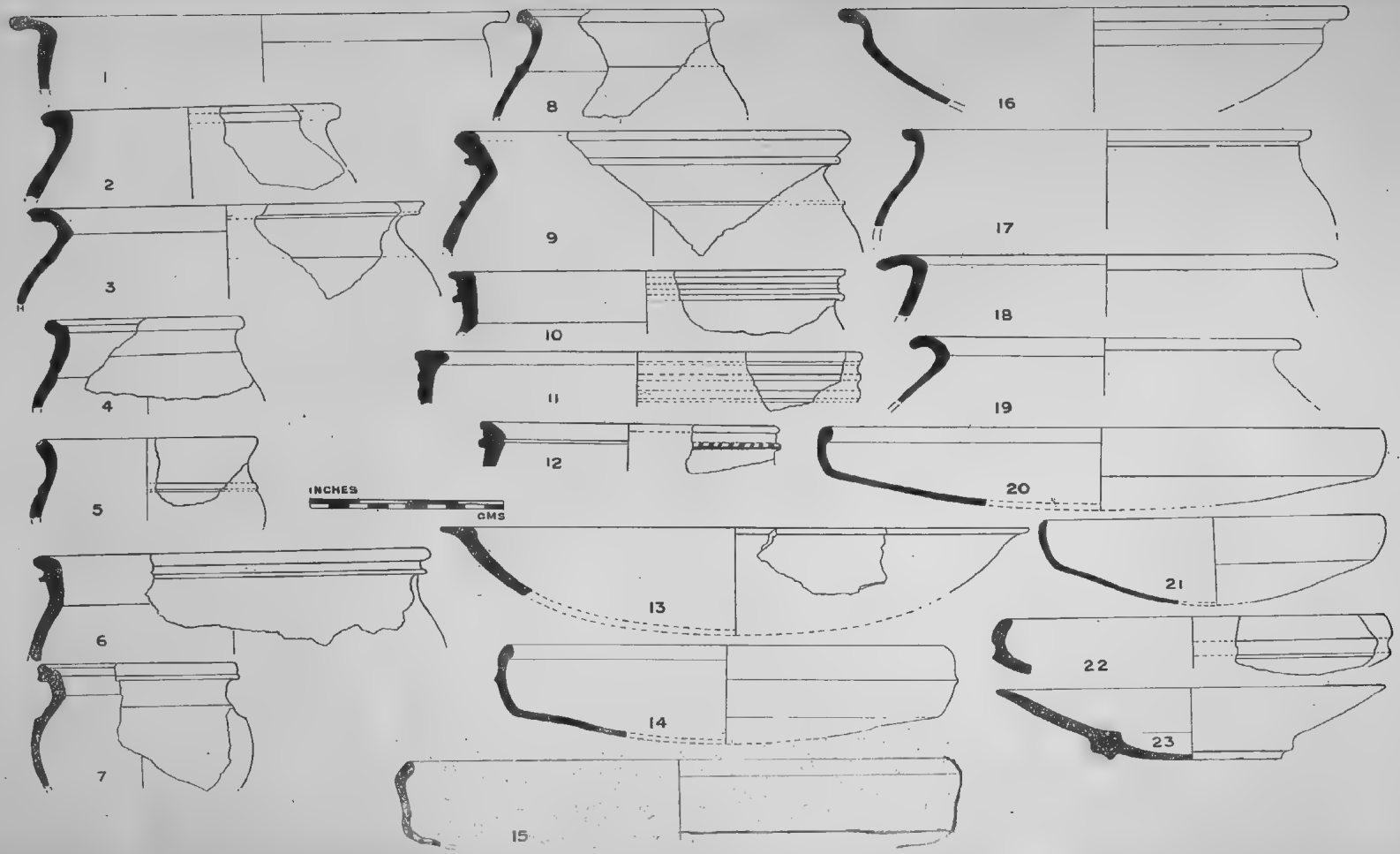

Plate No. 56 : Megalithic Pottery
(Pages 42—51)

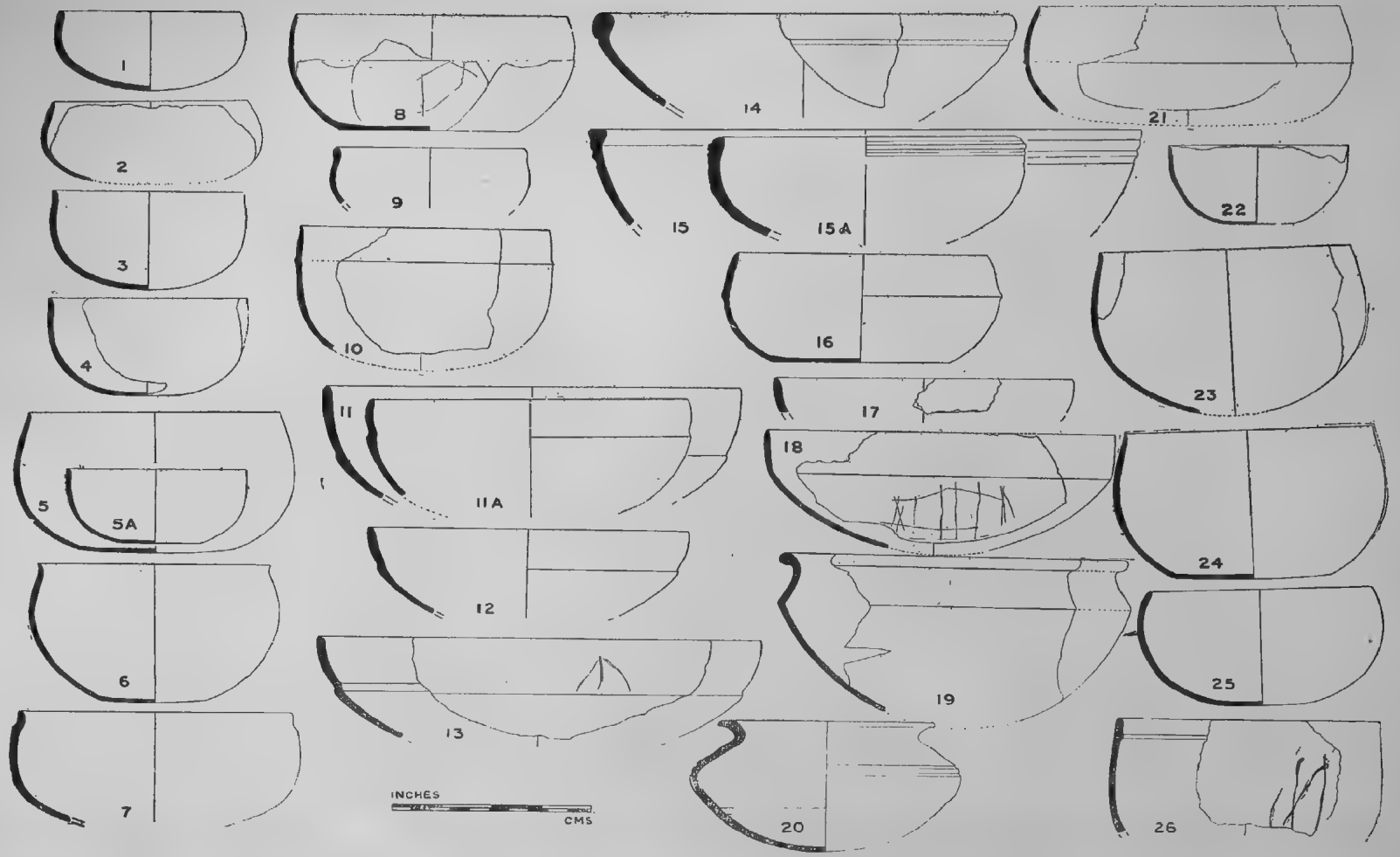

Plate No. 57 : Megalithic Bowls.

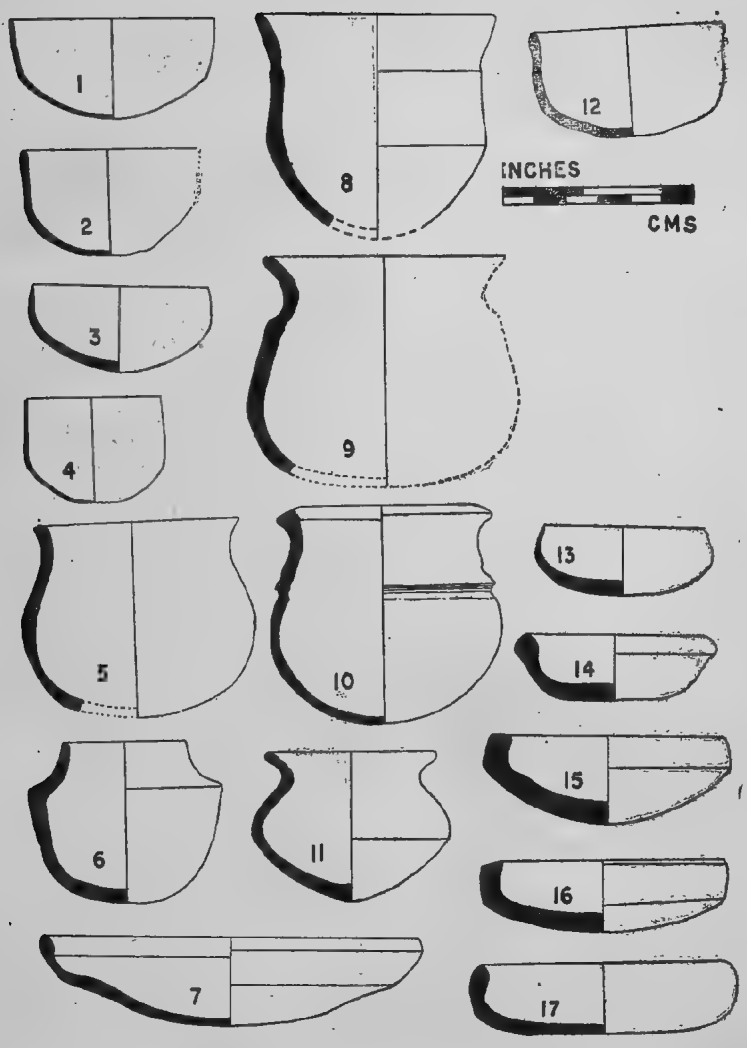

Plate No. 58 : Megalithic Pottery, T. Narasipur site.

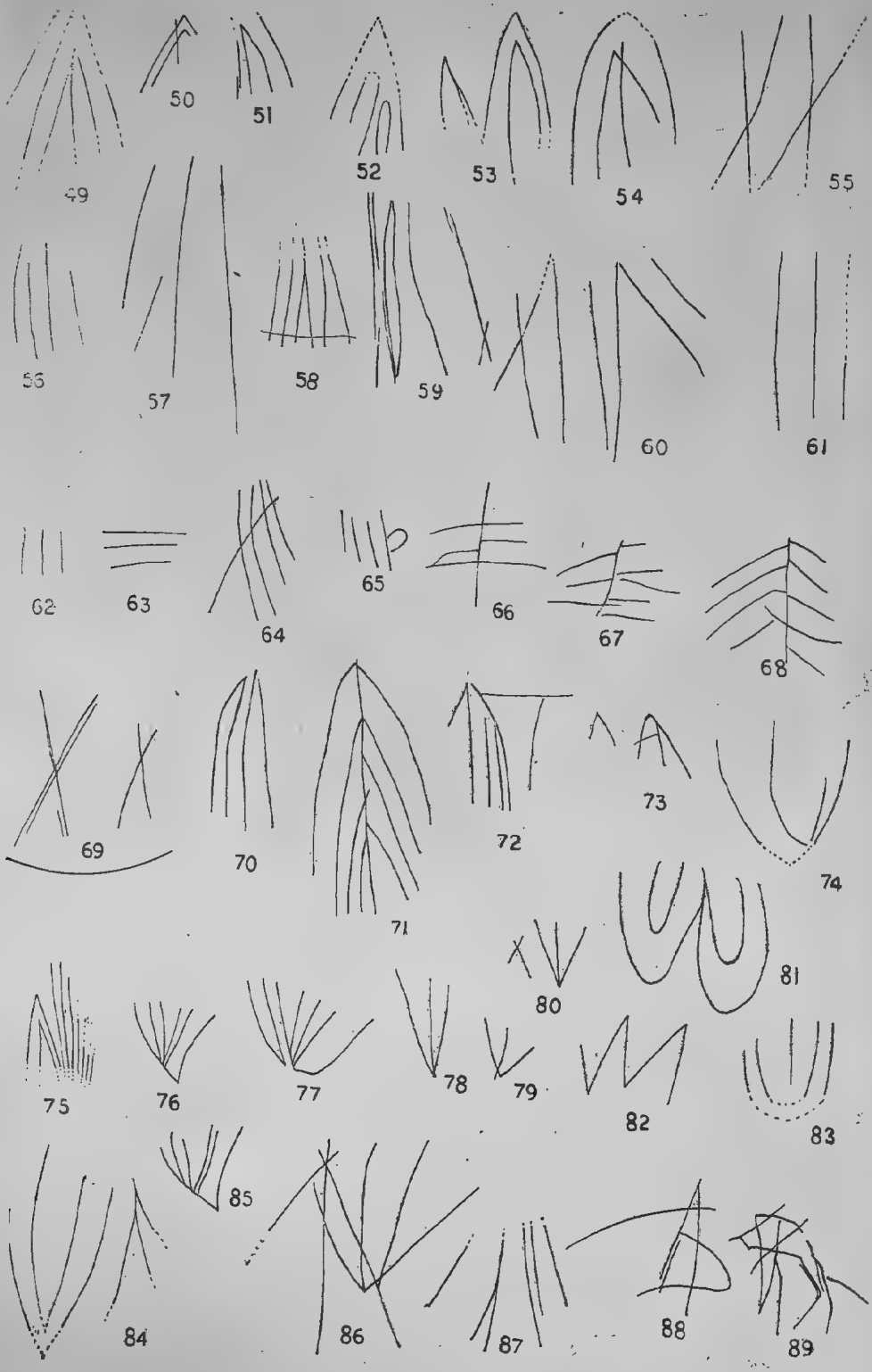

Plate No. 59 : Graffiti.
(Megalithic)

(Page 56)

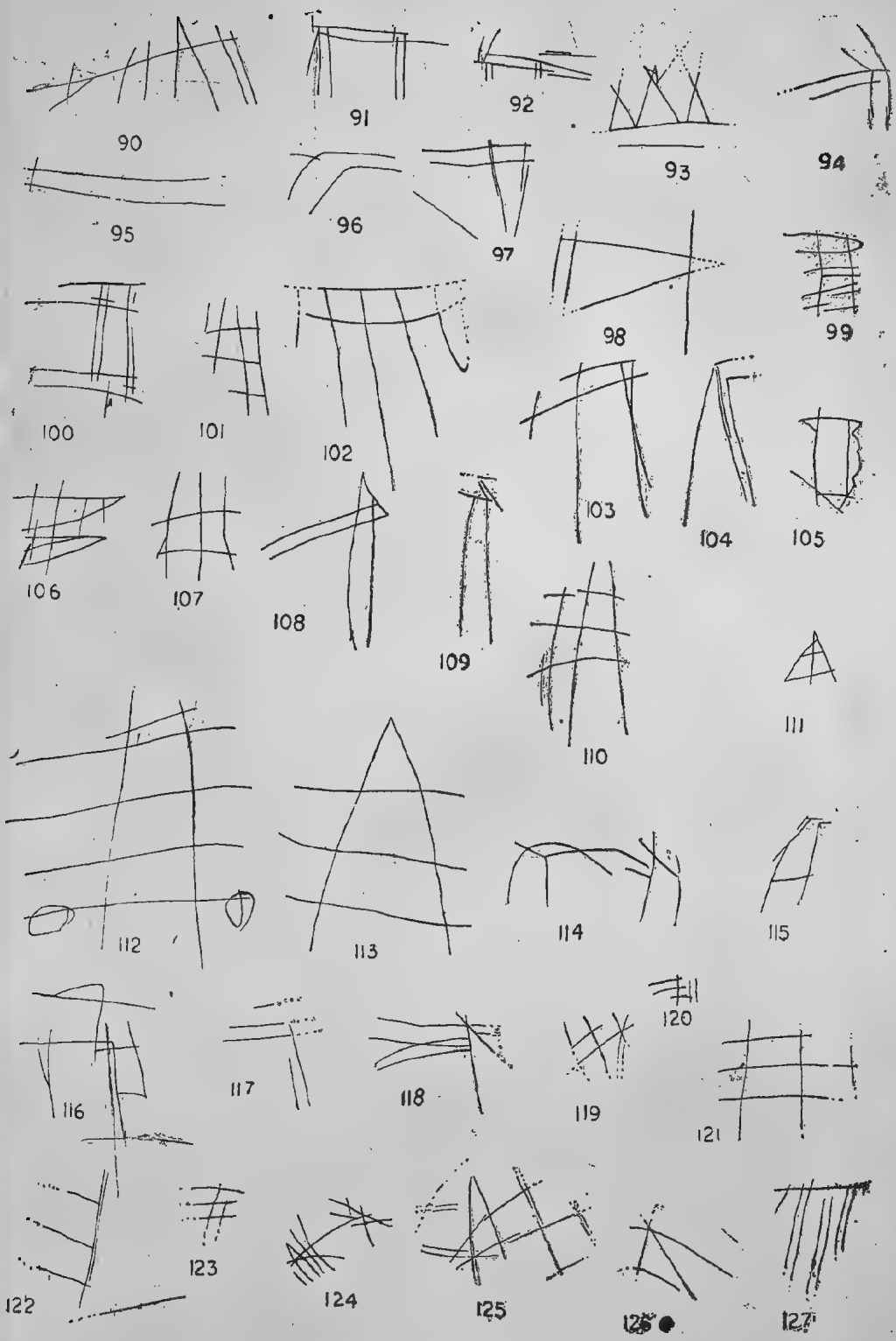

Plate No. 60 : Graffiti.

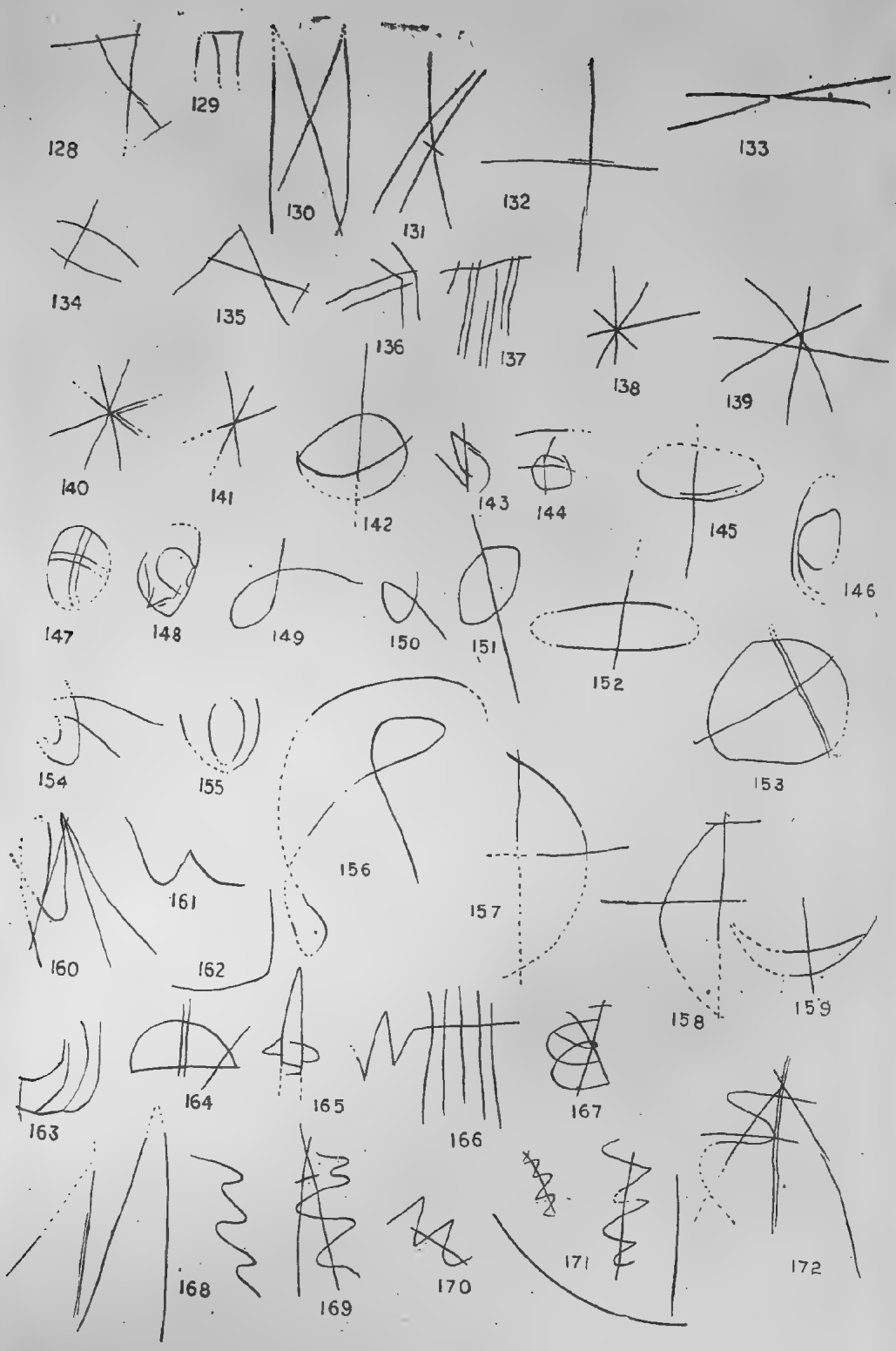

Plate No. 61 : Graffiti.

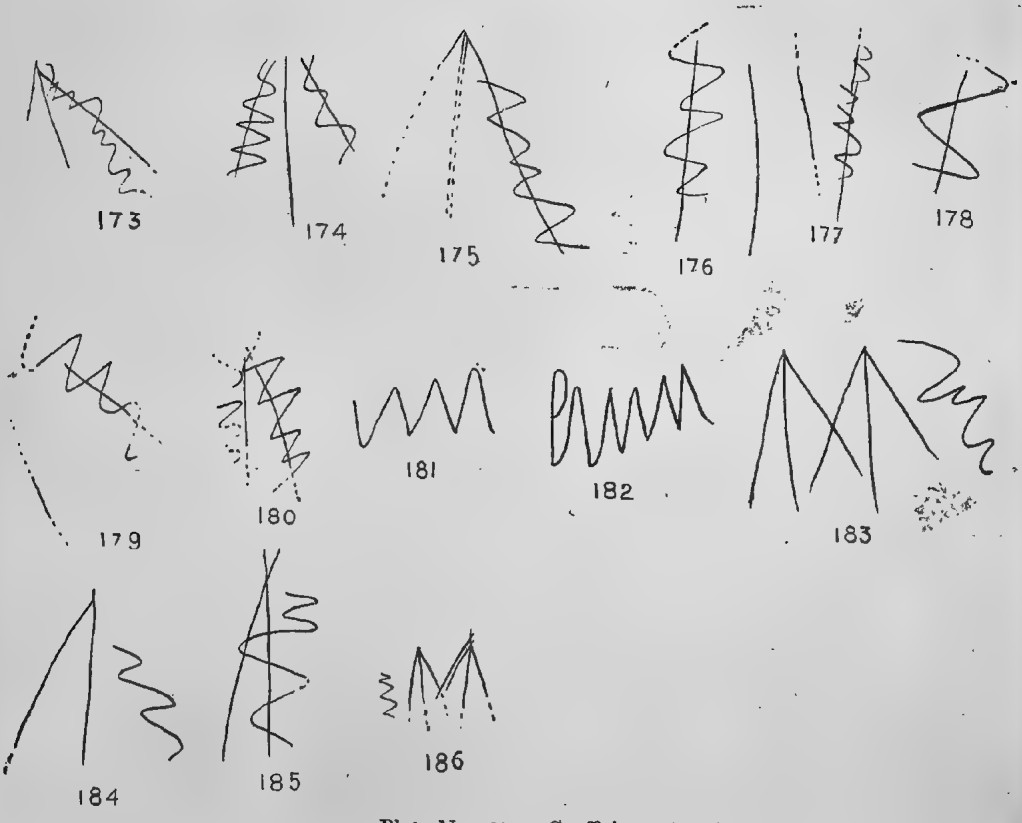

Plate No. 62: Graffiti.

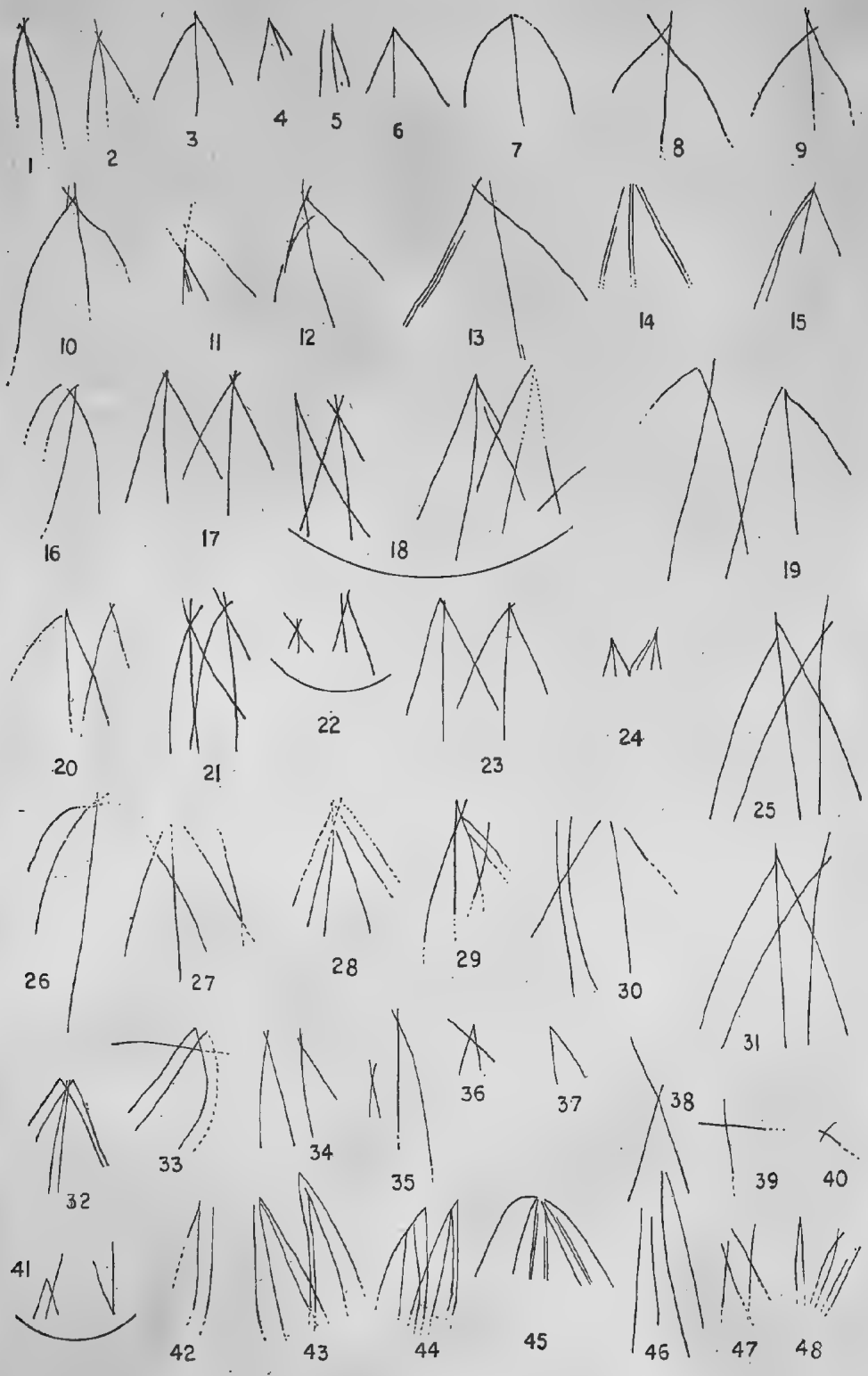

Plate No. 63: Graffiti.

Plate No. 64 : T. N. Megalithic pottery pieces (black-and-red) with graffiti and ripple marks.

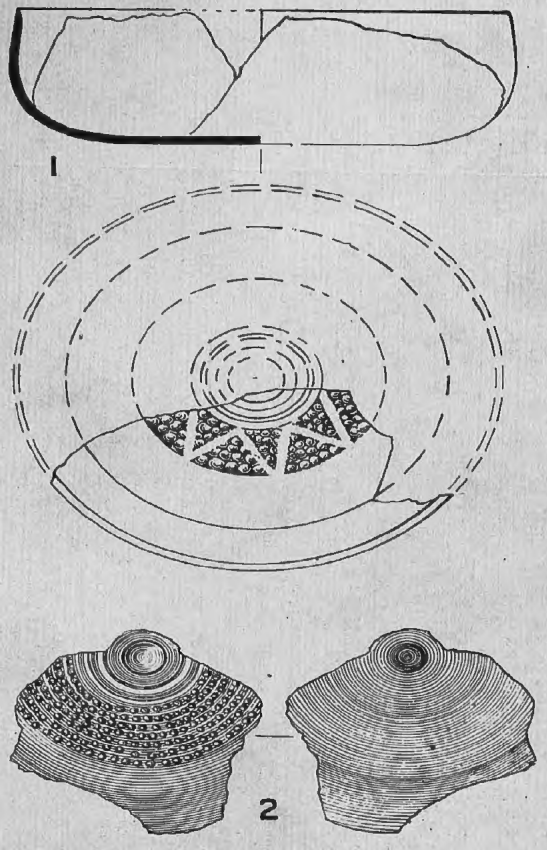

Plate No. 65A : "Rouletted Ware", Early Historical Period, T. Narasipur site.
(Page 54)

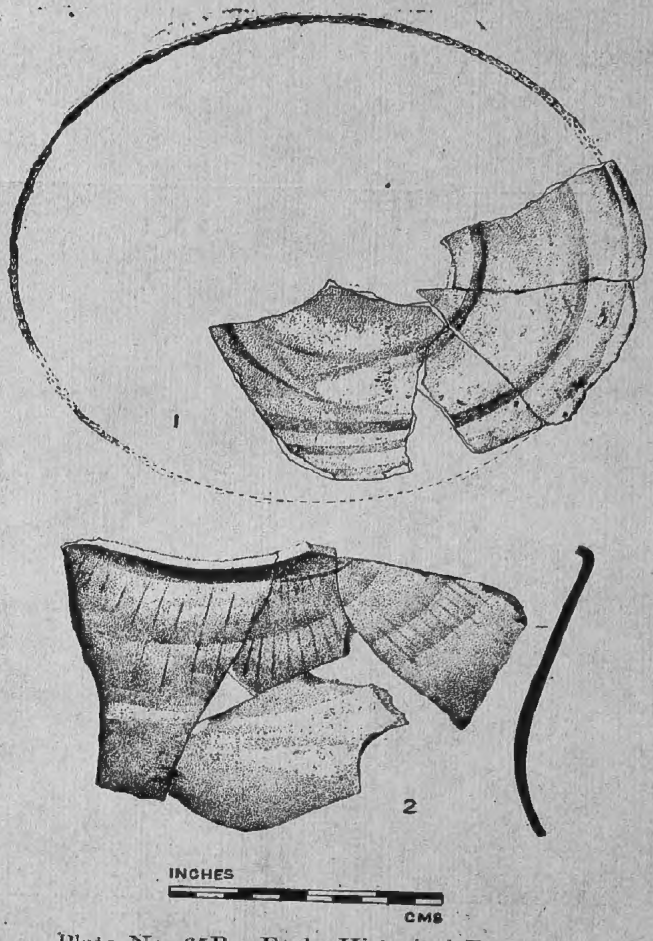

Plate No. 65B : Early Historical Pottery ; Russet-coated with dark bands under the lower surface.

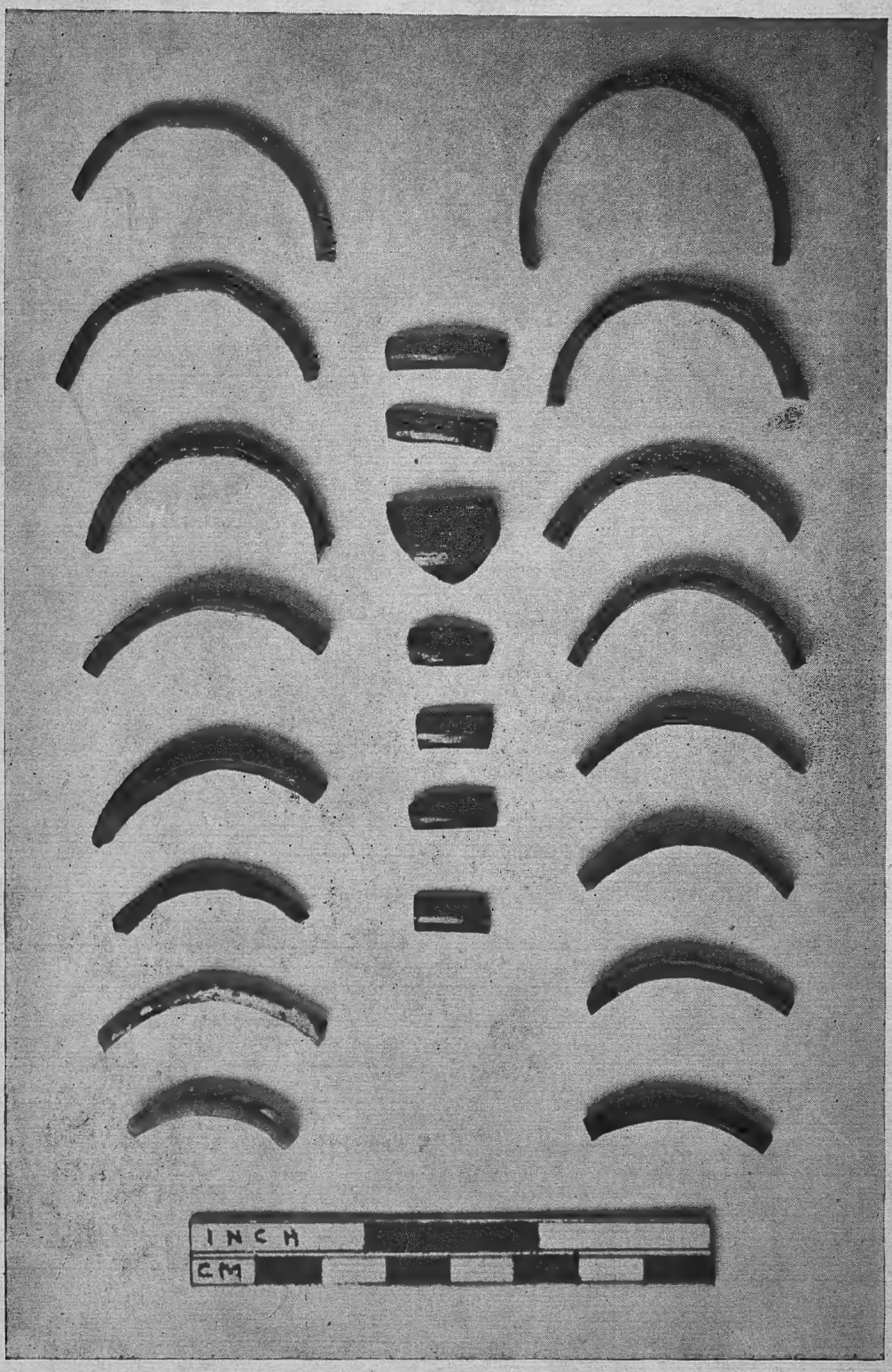

Plate No. 66 : T. N. Bangle pieces, Early Historical.

(Pages 72—74)

WD 15767—GPB—1,000—21-6-71